

Revenue Potential Increased by \$5.99 Million



HARTFIEL
AUTOMATION

Customer Info

Producer of paperboard, containerboard and consumer and corrugated packaging.

- Approx. \$3.0 billion Annual Sales.
- Est. 10,000 employees. people.
- More than 90 facilities in the US, Canada, Mexico, Chile and Argentina.

Services Offered

Consumer Packaging
Corrugated Packaging
Merchandise Displays
Paperboard
Recycling
Specialty Paperboard

Business Challenge

Customer is wanting to increase productivity level and the speed of line to gain new customers and market share.

Equipment:

Currently using a 12-station collator machine. Each different color of boxes are placed at each station. As the machine conveyor runs under each station, vacuum cups pick off colors to randomly combine them before going to tissue manufacturer to be filled, and then ultimately to the retailer.

Using a water cooled vacuum pump for the collator and a second vacuum source pump is needed for the secondary pick function; a large vacuum generator with a venturi design.

Situation:

Only 8 out of 12 stations can be used on the collator at a time. The current water-cooled, oil lubricated vane pump, was not providing enough vacuum to run all 12 stations. The collator machine and window machine would bottleneck if operated at normal speed and so the line had to be slowed down. The gluer and palletizer were able to operate at normal speed.

The existing vacuum pump requires maintenance on the vanes, oil, filters, and water cooling system. The second vacuum source pump, a venturi design, uses a tremendous amount of compressed air.

Solution:

The window machine was replaced with a new version but replacing the collator machine was not an option due to its size- 40 feet long, nine feet tall, 12 feet wide. It was adapted with a Hartfiel Value Added solution. A new vacuum system, comprised of three Busch dry running rotary claw vacuum pumps, replacing the two existing vacuum pumps. This increased usable stations to 12, increasing production speed by double, and eliminating bottleneck.

Benefits (per year):

Decreased cycle time: \$5.99 million in additional revenue

Decreased down time: \$12,000 in savings

Maintenance and electricity: \$4,800 in savings.

Additional benefits are keeping a major national customer and gaining new customers by marketing enhanced capabilities.

Components Used:

-Busch Dry Claw Style Vacuum

-Cost of the new vacuum solution is \$21,000.

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