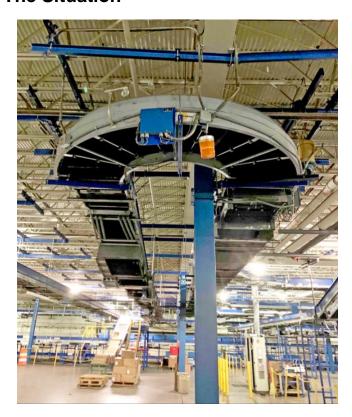


### SilMan Industries engineered, procured and installed Interroll-Portec Belt Curves for two Levi Strauss & Co. facilities in the Southeast.

(follow this link to view a video of this project)

### The Situation



#### Levi Strauss & Co. in the Southeast

This unique project puts the SilMan Engineering team in the spotlight for their careful analysis of a facility that on the surface, appeared to only require repair.

After a breakdown of a key legacy Portec curve inducting the main shipping sorter, SilMan engineer Ian Fulton made an onsite visit to assess the situation.

A temporary "fabricate and rebuild" was performed in the field by the SilMan Site Services group and the line was operational within four days. Nonetheless, the disruption was cause for concern for the client, who requested a systemwide rehabilitation project for their existing curves.

However, in the process of the repair, and by

Fulton's sharp eyes during his visit, he saw the potential for a much greater outcome for only a modicum increase of investment.

The Tupelo team prepared a plan to provide Levi with an updated system – new equipment – with no downtime.

A "new versus repair" scenario was presented to the client.

The value was clearly in favor of update, which included additional benefits of OEM warranty, availability of replacement parts, reduced downtime, and, of course, the speed and reliability of new equipment.

This course of action was embraced by Levi and executed by SilMan. The projects were cumulatively completed three weeks ahead of schedule.



#### Interroll "Portec" Belt Curves

The Interroll Belt Curves, also known as "Portec Curves," are an industry-leading conveyance solution. In fact, their products can be found in 80% of all airports in the world, according to their website.

Their reputation for low maintenance and continuous-use performance made Portec Curves the perfect equipment choice for updates at the two Levi Strauss Southeastern DCs.

### The Project

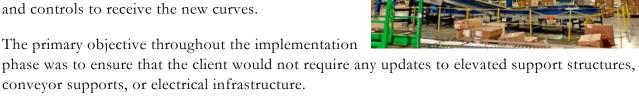
The projects were completed on multiple weekends and included two hours of system start-up each Monday after weekend work. A total of 28 curves were installed at the two facilities over 10 weekends.

Since new curves are being interpolated into a system based on the mechanical, electrical, and control parameters of outdated equipment, the most important aspect of this project was the preplanning and foresight of our engineering team.

The previous curves were over 20 years old. Since that time, the dimensions, power, and control specifications for the equipment have all changed, and spare parts from the OEM were almost non-existent.

Therefore, the task for our Engineering team was to "reverse engineer" the facility, equipment, electrical, and controls to receive the new curves.

The primary objective throughout the implementation



### **Challenges**

#### Mechanical

The mechanical challenge for this project was minimizing modifications of existing lines for new dimensions, and adapt existing equipment supports for the new Interroll belt curves.

Moreover, approximately 45% of the curves were positioned overhead, requiring additional engineering to ensure that all new equipment can be supported by existing hangars.



#### **Electrical & Controls**

Similar to the situation above, the electrical and controls challenge was to match new equipment with existing controls, including horsepower, speed, motor sizing, and location, all utilizing existing electrical infrastructure and controls hardware.

### Onsite Efficiency: Scheduled versus actual

- Hebron: Seven estimated weekend mobilizations: Actual = Two
- Canton: Six estimated weekend mobilizations: Actual = Three

### **Results**



The overriding strategy of this project was to provide a costsensitive solution for improved performance and reliability of the systems in these two facilities. Specifically, to include replacement of belt-curves. This tactic required that our engineering team utilize existing structural and electrical infrastructure, as a cost-saving measure.

Deriving maximum value from Portec curves begins at installation, especially when retrofitting into an existing system.

It is in situations such as this where SilMan's veteran material handling team is uniquely valuable.

Their foresight in the planning and design stages were key elements in providing maximum value for Levi and SilMan. That is the timely completion of the project and providing the efficiency and financial outcome desired by Levi Strauss.

Our experience with Interroll-Portec products also played an important role in providing a realistic ROI justification in the proposal stage.

Lastly, we cannot speak of "Results" without calling attention to the exceptional work of our execution team. Their planning and skill delivered high-quality work, and their efficiency wrapped these projects a total of three weeks (weekends) ahead of schedule.

### Key Players on this project include:

• David Rebata: Account management

Keith Hiyama: EngineeringIan Fulton: Engineering



- Xavier Williams: Engineering and Project Management (Canton)
- Todd Sadler: Engineering and Project Management (Hebron)

We are especially grateful for the personal dedication and leadership displayed onsite by Todd Sadler and Xavier Williams.

This outcome is a great example of the "one-team" approach that is at the heart of SilMan's organizational structure and philosophical mindset. This focus delivers efficiency through seamless communication and high-level performance through inter-discipline knowledge sharing.

### **About Portec & Interroll**

Founded in the 1950's, Portec developed a revolutionary conveyor design, built on flexible belts and direct-drive motors. Their products were adopted around the world, managed from their headquarters in Cañon City, Colorado.

According to their LinkedIn page, Portec systems originally installed in the 50s are still in operation.

The company was acquired by Interoll in 2013.

The hands-on craftsmanship behind the quality and longevity of the equipment is clearly alive and well, as seen in this video, which features "behind-the-scenes" footage captured at their manufacturing facility.

Interoll is a material-handling manufacturer based in Sant' Antonino, Switzerland. Originally launched in 1959, the company expanded its international footprint in the 1960s and 1970s by acquisition.

Since that time, Interroll has emerged as an innovator innovator in the field of conveyors, sorters, controls, and automation.

With the addition of the Portec products, Interroll has emerged as the leading global supplier of conveyor equipment for baggage handling systems and eCommerce Fulfillment.

### **About SilMan**

SilMan Industries (previously SilMan Construction) is based in San Leandro, Calif. Founded in 2008, the firm operates nationwide in three divisions – Construction, Material Handling and Site Services – and partners with "best in class" companies nationwide providing integrated solutions in the Industrial, Manufacturing, Distribution, and Public Works sectors. For more information, please visit www.silmanindustries.com/about.