Alba MANUFACTURING

Case Study

Spicing Up Snack Manufacturing: Malin and Alba Partner to Deliver a Pallet Handling Breakthrough



Overview

Malin Systems, a trusted systems integrator, collaborated with Alba Manufacturing to provide Barcel USA, LLC — a premier snack manufacturer known for brands like Takis and Popcornopolis — with an efficient, state-of-the-art pallet handling system. This project exemplifies the power of partnership and innovative engineering in meeting the demands of a high-volume manufacturing environment.



Challenge

Barcel USA required a robust pallet handling solution to support their dynamic operations. The challenge was to integrate a system capable of handling stretch-wrapped pallets from six production lines while maintaining uninterrupted forklift and personnel traffic flow.

To meet Barcel USA's needs, the majority of the system was at an elevated height of 12'-6" with Malin supplied pallet rack to support the conveyors, allowing forklifts to operate beneath it. Additionally, the system needed to ensure complete trackability of each pallet for quality control and inventory management while keeping noise levels low in the bustling production facility.

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Solution: Advanced Conveyor Technology from Alba Mfg.

Malin Systems and Alba Manufacturing combined their expertise to deliver a cutting-edge solution tailored to Barcel USA's requirements:

Conveyor Components:

- **Elevated Conveyors:** One Hundred Forty-Two (142) Model 251140 6 CDLR Conveyors of various lengths, mounted on pallet racking provided by Malin.
- **Floor-Level Conveyors:** Fifty-Four (54) Model 251140-6 CDLR Conveyors for ground-level pallet handling.
- **Turntables:** Twelve (12) Model TT251140-6 Turntables with 84" diameter electric bases.
- **Transfers:** Four (4) FFT251140-6-3S Frame-to-Frame Transfers.

Innovative Features:

- 24VDC Itoh Denki KT Motorized Rollers with IB-E04FP two-zone drive cards for soft start/stop operation.
- 24VDC Banner Retro-Reflective Photo-Eyes Wired to the Drive Cards for precise pallet tracking.
- Pneumatic Pop-Up Transfers for 90° transferring of pallets.
- Adjustable End Stops for smooth pallet transitioning.

Design Highlights:

- Elevated conveyors positioned at 12'-6" to allow forklift traffic below.
- Effective conveyor widths of 52" with 2-1/2" diameter rollers on 6" centers.
- Alba's signature blue paint with safety yellow chain guards for enhanced safety and visibility.





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Benefits to Barcel USA: Safety, Efficiency and Trackability

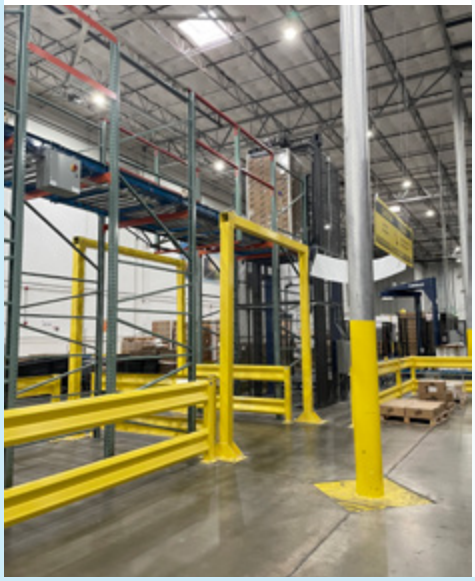
The solution provided significant operational improvements, helping Barcel USA maintain its reputation as a leader in snack production:

1. Traffic Optimization: Elevated conveyors ensured seamless forklift and personnel movement, supporting Barcel's fast-paced operations.
2. Enhanced Trackability: Unique tracking labels applied to both ends of each pallet provided full visibility and lot identification within the system.
3. Noise Reduction: The 24VDC motorized rollers offered a quieter alternative to traditional 480VAC systems by supplying controls cards that allowed for soft starting and stopping of the conveyors, enhancing the work environment.
4. Cost-Effective Engineering: The 24VDC technology eliminated the need for individual VFDs, providing a competitive edge without compromising performance.

Outcome

As a systems integrator, Malin Systems leveraged Alba Manufacturing's advanced conveyor technology to deliver a seamless, customized solution for Barcel USA. This collaboration exemplifies the value of combining integration expertise with innovative products to address complex challenges. A division of Grupo Bimbo, Barcel USA specializes in savory snacks, offering unique sweet and spicy options such as Takis, Popcornopolis, and other fan favorites. With high production demands, Barcel relies on efficient and reliable systems to keep their products moving.

This project highlights how the partnership between Malin Systems and Alba Manufacturing provided Barcel USA with a cutting-edge pallet handling solution that improved safety, efficiency, and operational visibility. Together, Malin and Alba are proud to support Barcel's commitment to delivering exceptional snack products to their customers.





For more information about Malin Systems and their solutions, visit Malin Systems. To learn more about Alba Manufacturing, contact us at 866.252.2634 or visit our website at www.albamfg.com.

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