Alba MANUFACTURING

Case Study

Want Efficiency and Less Downtime? Automate!

Built Battleship Tough:
Two Year Warranty
on All Products

The Backstory

A leading manufacturer of automobiles and automotive components was seeking a way to automate the manufacturing of various steering components that require a great deal of machining at very high production rates. The operation depended on people to unload parts from containers and place them onto machining fixtures for precision machining.

Once the machining was complete, they pulled the parts off the fixture and placed them back into containers then transferred the finished parts out of the manufacturing cell. This process required a lot of time and manual intervention. There were also safety concerns.

In addition, they were also having difficulties with downtime due to absences and a shortage of labor. They sought an automated solution using robots and conveyor to feed unfinished loads of parts in containers into the cell and receive the finished parts back from the cell before moving them to the assembly area.

About Us

Established in 1973, Alba Manufacturing engineers and designs heavy-duty pallet handling conveyor systems.

Starting with core components, we have virtually limitless enhancements to provide maximum application adaptability and flexibility. Consequently, with a pre-engineered product line, we provide on-time deliveries, affordable solutions and superior quality.

Our corporate office and manufacturing facility is located in Fairfield, Ohio, approximately 30 minutes north of Cincinnati, Ohio.

Our conveyor systems typically consist of the following types of solutions:

Chain Driven Live Roller (CDLR)

24VDC Motorized Driven Roller Conveyor

Zero Pressure Accumulation Conveyor

Drag Chain Conveyor

Gravity Roller Conveyor

Lift & Rotate (a.k.a. Iron Cross)

Pallet Stackers/Dispensers

Turntables

Chain transfers

Transfer cars

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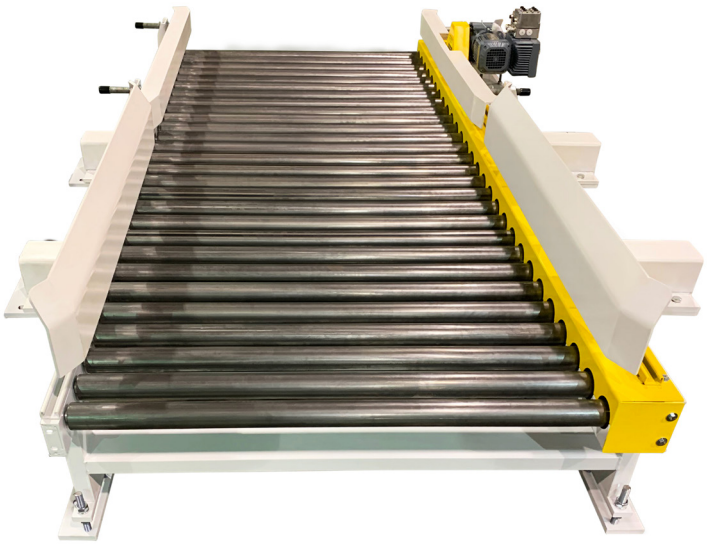
The Application

One of Alba's partner network integrators was selected for the project. The concept was to have AGV's deliver full containers to the cell with unfinished parts. The containers full of parts would be dropped off on an infeed conveyor that would deliver the parts into the cell for unloading via robot. The robot would pick parts from the containers and place them onto the waiting work holding device for the machining cell. Once the work holding device was full of parts, it would rotate into the machine for processing.

While machining takes place, the robot would unload the completed parts and place them back into the empty containers. This process would continue until the containers were completely full. When the parts were processed and the containers were full, they would then be conveyed out of the cell ready to be picked up by an AGV for further processing.



Alba's Solution

Alba provided 3D generated drawings in SolidWorks® for the integrator which allowed them to drop the conveyor blocks into their equipment layout and present them to the end user as a 3D model.

Alba provided CDLR conveyor and a frame-to-frame transfer for conveying the load. The integrator required special guide rails, end stops, and Unistrut to be mounted to the conveyor. The equipment was manufactured in Alba's plant in Fairfield, Ohio, then inspected, and shipped to the integrator for complete integration into the system.

Once the Alba equipment was received, it was married to the integrator robot and controls in preparation for a complete system run-off. Alba worked with the integrator to design and build a system that was flexible, robust, and efficient to satisfy the customer's needs.

Alba Manufacturing is your full-service, conveyor manufacturer for all your pallet handling applications. Call us to locate your nearest Alba Partner Network Member to assist with your next project at 866.252.2634 or visit our website at www.albamfg.com.