RICHARDS-WILCOX CONVEYOR

CASE STUDY:
CLYDE MACHINES

CREATING A STREAMLINED SMART CONVEYOR FOR CLYDE MACHINES

WHAT'S ON THE LINE: *Clyde Machines Inc., a world leader in the design and manufacture of Aircraft Ground Support Equipment, has been serving the Aviation Industry since 1961. The family-owned business had seen tremendous growth in the last decade, and to support this growth, they expanded their facilities with the addition of a new 100,000 sq ft building.*

NOW, ALL THEY NEEDED WAS A HIGHLY EVOLVED, CUSTOMIZED CONVEYOR SYSTEM TO HIT THE GROUND RUNNING.

In 2014, Richards-Wilcox Conveyor installed a basic stripped-down system for Clyde Machines. Now, Clyde needed a significantly more efficient and flexible system to support their new operations.

RICHARDS-WILCOX CONVEYOR GOT CREATIVE WITH THE DESIGN TO EXPAND CLYDE'S CAPACITY WITH A CONVEYOR SYSTEM CUSTOMIZED FOR THEIR NEW FACILITY.

We took their architect's software files and merged them with our layout files to ensure there were no obstructing columns.

Working closely with Clyde during the design of the system, we were able to exceed their expectations and reduce the planned floor space.

Another major challenge with Clyde Machines' Paint Line Design was the multitude of different sizes and weights of the parts to be conveyed—some as heavy as 2,500 lbs. This only meant one thing. It was time to build a stronger system engineered for evolution.

"WHEN WE MET DAN, THE RICHARDS-WILCOX REPRESENTATIVE FROM DIVINE INDUSTRIALS SALES, HE DID WHAT ANY GOOD SALESMAN DOES, SAY 'YES, WE CAN DO IT.' BUT RICHARDS-WILCOX *ACTUALLY COULD*, AND THEY DID. WE COULDN'T BELIEVE THE RESULT."

ALL ON BOARD THE NEW DESIGN.

With that can-do attitude, we worked closely with Clyde Machines to develop a streamlined smart conveyor system. We helped Clyde design the ceiling structure to support the conveyor system. This reduced project cost and eliminated the need for floor supports that become obstructions in the process. This step is usually not planned prior to building construction.

Next, we built a fully integrated central control system and interfaced the Richards-Wilcox Conveyor Control System with Clyde's host computer system. This allowed unique parts at the load stop to be tracked with the finishing equipment as they travel through the system.

The streamlined interface scans the parts to determine what they are, calculates the exact distance they need to be positioned at for painting, and relays the information to the finishing equipment.

Balancing automation with customizable controls was key to maximizing Clyde's productivity.

The new system integrates a robotic sand blast booth, automatic "slow speed" paint booth, manual paint booth and adjustable cure time oven – each function customizing control to minimize labor and maximize output.

"WE'RE PAINTING 3 TIMES THE PRODUCT ON OUR NEW SYSTEM, WITH HALF AS MANY PEOPLE."

We also built in an alarm for the rare occasion when a human error interrupts the flow making it really easy to reset and start back up again within minutes.

CLEARED FOR TAKEOFF!

Ultimately, Richards-Wilcox Conveyor designed a system with potential to paint everything up to 2500 lbs, improve profit margin, and make the process more efficient overall. With the all new streamlined smart conveyor, we helped this Aircraft Ground Support Equipment leader get on the runway of evolution.

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ENGINEERED FOR EVOLUTION