



## Cleveland Tramrail® Gives Agriculture Machinery Company Flexibility for Process Improvements

**Industry:**  
Agriculture

**Product:**  
Crop Sprayers

**The Problem:**  
Existing assembly area not wide enough and not in a good location

**The Solution:**  
Cleveland Tramrail® Systems



**“It gives us so many more opportunities to change our manufacturing process.”**

Hagie Manufacturing is a provider of agricultural crop sprayers as well as large snow removal equipment for airports. The company was expanding its facility and was seeking improved workflow and better lifting solutions for its sub-assembly and final assembly work bays for crop sprayers.

The existing final assembly area was only 30' wide, though the crop sprayers can be as long as 48' across. The final assembly area was also not conveniently located, so parts needed to be transferred from sub-assembly to final assembly, which took additional time and resources.

A new building was constructed that would allow the sub-assembly and final assembly areas to be side-by-side, which resolved the workflow problem. Now the company looked for the best option for material handling.

“In our process before we had jib cranes, and that’s what we had used fairly successfully,” said Jim Schafer, Maintenance Manager. “But when we put up the new building, of course we wanted new options, and better options.”

In the new building, Hagie decided to go with two Cleveland Tramrail® patented track overhead bridge cranes. Both systems are ceiling mounted and span the full length entire assembly area with 202' runways. The patented track systems were chosen because of the hardened running surface, which would be able to sustain the constant use of multiple bridges throughout multiple shifts for a long period of time without flexing or bending.

The final assembly area featured a system with 50' support centers, five powered 1½ ton capacity bridges with 50' span, and five electric chain hoists. The multiple bridges allow the assembly process to be constantly moving forward on several orders at once.

The sub-assembly area featured a “hybrid” system with Gorbel’s enclosed aluminum track bridges with a 34' span, three at 1 ½ ton capacity, and three at ½ ton capacity, each with an electric chain hoist. By using Gorbel’s aluminum bridges on patented track runways, operators had the benefit of the lightweight and easy to move bridges, while at the same time were able to use all 6 bridges along the runway without buffers. This made all of the space within the work bay accessible at any time without creating “dead zones”.

“It gives us so many more opportunities to change our manufacturing process, to give us opportunity to change ourselves so that we’re not married into one design,” said Schafer. “As our machines evolve, and our build processes change, we’re able to address those.”