



TH Plastics, Inc.

CUSTOM CRANE SOLUTIONS

Features and Benefits

- Cost Savings
- Custom Engineering

Industry Group:

Hoist Manufacturers Institute (HMI)

Overview:

Bohl Crane has been a R&M Materials Handling Master Distributor for over 20 years, and in that time, they have used R&M's crane components to partner with thousands of companies to provide custom solutions for overhead lifting challenges and projects.

Recently Bohl Crane completed their third custom engineered overhead lifting equipment installation at TH Plastics, Inc's Bowling Green, Ohio plant location. TH Plastics is an injection molding company that manufactures decorative solutions for the appliance, automotive, industrial and consumer products industries.

Bohl Crane developed a specialized lifting solution for the manufacturing floor at TH Plastics by installing a custom engineered, 20-ton double girder bridge crane as part of the overall solution to increase productivity and output by maximizing the existing manufacturing space vertically and horizontally.

"The costs associated with raising the entire runway [would be] higher than stooling the crane itself"

Dave Haase
Bohl Crane



Dave Haase, an Account Manager at Bohl Crane explained that like the 15-ton cranes previously built by Bohl Crane and R&M, the 20-ton crane would need to be "stooled up" meaning that there would need to be a spacer added between the end truck and bridge girder to gain additional height of lift due to the low elevation of the existing runways in the building. This combination of stooling the crane with the increased capacity to 20-tons created additional obstacles especially with the need to add the crane to the existing runway.

Haase stated that, "the 20-ton crane project required an engineering analysis of the existing building and runway systems." He also added that due to the analysis results "in the manufacturing area, we completed reinforcement of the existing runways and minimal modifications to the building steel." With the help of R&M's team, the wheel loads were spread out along the runway with a long wheelbase end truck and extended trolley gauge.

Bohl was able to limit the allowable load of the new crane in certain sections by installing R&M's advanced safety features of zone control and collision avoidance technology. This solution would restrict the weight allowed in certain zones of the runway that had not been reinforced for 20-tons, while also keeping all cranes on the runway a specified distance apart to ensure that no single section of the runway could be overloaded. Haase commented that, "Radio control was added to make it easier for the operator to move the cranes around the equipment. The collision avoidance was added to keep the cranes apart to avoid overloading the runways and building steel as they were only designed for one crane per bay."

Bohl Crane and R&M collaborated to provide a unique solution to the material handling demands of the ever-evolving TH Plastics' facility. A custom solution was provided that maximized the existing building layout, increased productivity, and provided a safe operating space for employees, all while minimizing expansion costs.



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