



Application Story

Stage Construction

Supplying crucial materials for a complex concert tour stage

A renowned entertainment company was tasked with creating a complex and movable staging apparatus for an upcoming major performing artist's tour. To build the stage, they needed a rugged linear bearing system that included a large quantity of heavy load-bearing rail. Along with materials, flexibility was also essential to the design. Therefore, having consistent products from the same manufacturer would serve as building blocks for the entire system. This would include fixed systems as well as telescoping platforms. Along with these requirements was a quick delivery date, since the tour would begin in a matter of weeks. Speed would be essential to keeping the tour on schedule.

This project included fixed and telescoping stage platforms which required sturdy rail & bearing systems.



144
Total
Number of
Bearings

Why PBC Linear

This project began with a simple customer inquiry made to the PBC Linear website. PBC Linear responded by quickly contacting the customer and evaluating their needs and the full scope of the project. As it turns out, the customer was already knowledgeable regarding linear bearing systems, and in turn was also well-known to PBC Linear. With the completion of the project, PBC Linear was able to provide the staging company with efficient options and solutions that were not available from competitors.



2,169
Total Feet of Rail

Products and Solutions

After first evaluating the specifications of the customer's request, along with the available inventory, it was discovered that the lead time for the project was unattainable. This led to deeper discussions regarding the customer's overall needs, allowing PBC Linear to provide a different set



of options based on available inventory. In fact, this early engagement helped to influence the customer's design, and ultimately provide a solution resulting in a successful, on-time delivery of the project.

PBC Linear supplied the staging company with rails in a variety of lengths. The Hevi-Rail line was considered the best fit, partly because it offered the option of welding multiple butt joints within the structure. In other words, they could now combine smaller lengths to form more specific rail lengths instead of cropping a large number of 20-foot lengths that had initially been requested. This option of welded joints gave the system designer more freedom in how to creatively use the building blocks.

Why Hevi-Rail



It was evident from the beginning that the Hevi-Rail line would be optimal for the stage project. Parts of the enormous stage would be required to move up and down, as well as side to side, while having the stamina to remain productive over the entire tour. The designers and engineers were comfortable with welding and building steel fabrications, and would need products that were strong, reliable, and easy to

work with. The rails and bearings would also need to be easily integrated into a system that was built with stationary steel supporting members. The Hevi-Rail line fit all of those needs!

Results and Totals

PBC Linear was able to achieve a high level of customer satisfaction by employing good communication and flexibility throughout the entire project and meeting the deadline. Delivery of this high-profile project was handled in just one shipment, requiring a total of 144 bearings and over 2,000 feet of rail. The stage production company acknowledged that they were very pleased with the outcome and will consider PBC Linear as a first-choice for future staging projects involving linear motion technology.

Hevi-Rail Components



Axial Bearings



**Bearings with
Flange Plates**



**Bearings and
U-Channel Rails**

