

HI Shock Absorbers Reduce Downtime and Increase Safety at Automotive Plant

Enidine Energy Absorption Application

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Product Overview

A turnkey paint systems manufacturer for the automotive market wanted to increase safety on a downhill conveyor used to transport cars in an automotive plant. Paint systems are typically located on the second or third story of automotive plants for various reasons, including the ease of exhausting the heat and fumes from the baking process. After completion of the paint process, the vehicles return to the first floor via the downhill conveyor. In the event of a power or mechanical failure, the car body could travel down the carrier at an unsafe rate. To prevent possible injuries at the bottom, a safety stop would be required.

The application solution was unique because the deceleration required for these heavy loads and high velocities would also need to stop the load while keeping the car body on the platform. Other retarding devices were tested, but the constant cycling and high temperature at the locations near the ovens was detrimental to the product, drastically decreasing life and increasing repair time. Having worked with ITT Enidine Inc. in the past, the manufacturer once again contacted them for an application solution.



Product Solution

ITT Enidine Inc. recommended the HI 120 x 100 buffers based on energy capacity and impact loads. The special materials required to satisfy the velocity and shock inputs made this product the best solution. The HI Series is also very conducive to these changes. Successful testing enabled the customer to implement this design as the standard and proved to be the most cost effective and technically feasible solution. The results were reduced downtime due to repair or replacement of shocks in the old system and increased safety at the automotive plant.

Application Opportunity

The HI Series Shock exceeded the manufacturer's expectations in that it has been determined that the system could actually be installed for heavier loads due to the capabilities of the buffer. The cost effective solution in a highly competitive market enabled the client to win more proposals. The flexibility of ITT Enidine Inc.'s HI products enable applications in other markets that typically work with extremely heavy loads such as the Steel or Off-Shore industry.