

One-Shot Shocks Help Reduce LCD Inspection Machine Size and Overall Cost | Enidine Energy Absorption Application

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Product Overview

A Japan based manufacturer of electrical discharge machines was in the process of developing an LCD inspection machine. The machine houses an X-Y stage linder motor-driven table that uses high-speed servo motors, requiring emergency stops at the end of each axis. Originally, the fixed-orifice hydraulic shocks were used on the prototype model but proved to be too large and expensive for its energy capacity. Searching for a more cost-effective stopping mechanism that would also lessen the machine's length, and protect this equipment the customer contacted ITT Enidine Inc. for a solution.

Product Solution

ITT Enidine Inc. suggested replacing the hydraulic shocks on the prototype model with One-Shot Emergency Stop shock absorbers. The machine required six (6) OS-20-450 shocks mounted on the X-axis and eight (8) OS-20-450 shocks mounted on the Y-axis. The results proved that ITT Enidine Inc.'s One-Shot shocks reduced the machine's length and reduce the overall cost but still provided the emergency stops needed on each end of both the X and Y axes.

Application Opportunity

Upon installing and testing, the customer was very satisfied with the compact size of the One-Stop shock and its potential cost savings. The machine's length decreased by 100 mm and the cost decreased by \$18,000 USD annually. Given these results, the manufacturer is able to produce 10 machines per month and will implement ITT Enidine Inc.'s One-Shot shock in the next development stage of this machine. The company also manufactures EDM machines such as a die-sinker that would also benefit from this product.

