PBC Linear Actuators Provide Smooth Horizontal Guidance in Sandblasting

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Fabricated steel structures and processed steel are often treated with protective coatings or polished to ensure long life and enhanced appearances. To guarantee these coatings are solidly adhered to the fabrication and/or the raw steel component is esthetically pleasing it is necessary to remove rust, oil and other contaminants. Often this is done with a process called abrasive blasting. Abrasive blasting is a process that is used to make surfaces smoother and cleaner. A high-speed stream of abrasive material such as sand or glass beads is propelled out of a gun at the surface to burnish it and remove any surface contaminants. This process may create a hazardous and contaminated environment, resulting in safety issues for workers. PBC Linear was asked to provide a linear motion system that could not only accurately and reliably complete the required tasks, but also tolerate the extreme environment.

Abrasive blasting fills the air with rapid flying and possibly contaminated particulate. This presents a danger to a work force of hazardous dust, abrasive burns and high noise. Other issues are the uniform removal of debris from the steel components. To solve this obstacle, the manufacturing company decided to automate their blasting process of the steel shafting. This necessitated a sophisticated and durable linear motion system. PBC Linear recommended using environmentally protected linear actuators for the job. Enclosed in a special bellows design—protecting the actuator’s components from the harsh outer environment—PBC’s linear actuator provided the horizontal positioning of the abrasive blast gun. The benefits included more
through-put, lower costs, less waste and a uniform finish to the steel components and the operators were safely isolated from the flying debris!

For more information on PBC Linear’s actuator product line, please call 1.800.729.9085, email to marketing@pbclinear.com, or visit us at our Linear Actuator Technology (LAT) dedicated website: LAT.pbclinear.com for free downloadable materials and other application examples.