Large Printer Glides Smoothly Along PBC Linear Path

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Smooth, un-interrupted precision linear motion is essential to high end printing, and PBC Linear has been maintaining these qualities since the company fist began in 1982. Using PBC Linear’s versatile MT series belt-driven linear actuator and additional support from Linear Guides, part of the Profile Rail Technology (PRT) family, a well-known high-end printer manufacturer could sustain high positional accuracy over a large work envelope for their brand new poster printing system.

This new printing station spans over a 1500 mm long assembly-line resembling work area. During the typical printing process, the inversely mounted MT actuator carefully moves carriages containing the printing stock under the transverse motion of the ink jet print head for accurate, efficient, and high quality printing. However, the printing base—where the paper sits during the printing process—periodically needed mandatory cleaning and standard maintenance. This process required the 25 lb printing base to move just under three (3) feet into the purging area: a station that allows for environmentally safe disposal of printer ink. Once finished, the printer base needed to transfer back into the printing area and resume normal function.

PBC Linear recommended installing their MTB-042 linear actuator. The extruded aluminum body is protected by clear anodizing and provides a self supporting and contained linear motion system with convenient T-Slots for mounting the unit as well as accessories. The steel reinforced belt drive provides maintenance-free, accurate, smooth and quiet linear motion. The magnetically sealed stainless steel strip cover keeps ink out and actuator particulate in. The MTB-042 provides long-lasting precision linear motion for high-speed, high load
applications—even when the actuator is inversely mounted.

As the actuator propels and guides the print carriage. The other side of the carriage is supported and guided by PBC Linear’s newly offered re-circulating ball linear guides (PRT) to guarantee smooth and quiet linear motion. The runner block carriages come standard with innovative ball cages to provide higher loads, less lubrication maintenance and smooth and quiet operation. An internal lubrication system promotes long product life. PBC Linear’s new linear guide eliminates moment loads applied to the actuator—creating a stable, long-lasting linear motion system.

Overall, the printer manufacturer was impressed by the performance of the combined linear system. The vital smooth guidance provided by PBC linear was exactly what the company needed for the high-end printing station. For more information on Profile Rail Technology (PRT), or Linear Actuator Technology (LAT) please call 1.800.729.9085, email to marketing@pbclinear.com, or visit us at one of our dedicated landing pages: LAT.pbclinear.com.