APPLICATION SOLUTION:	Roller Positioning on Timber Planer

Product Family: Electric
Product Used: RSA64HT, Roller Screw Actuator
Product Type: Standard

Application Requirements
Stroke: < 152mm (6 in)
Speed: 152 mm/sec (6 in/sec)
Force: 31,138 N (7000 lbf)

Application Description:
Positioning the roller on a timber planing machine.

Challenge:
In order to meet customer demands to reduce or eliminate hydraulics from machines used in the lumber/forestry industry; a manufacturer of lumber processing equipment needed to find a robust, long-lasting alternative to position the machine's rollers on the planer. The incentive to reduce or remove hydraulics resulted from environmental concerns related to leaking hydraulic fluid, high maintenance costs, and the low system efficiency of hydraulic systems. In addition, low and high temperature fluctuations negatively influenced the performance of the hydraulic cylinders.

Tolomatic Solution:
A modified Tolomatic RSA64 HT high-force linear actuator with roller screw, sealed to IP67, was selected for this application. The roller screw electric rod actuator provided a robust solution that was able to withstand the shock loads caused when the machine's roller found gaps between the boards as they travelled through the planer. The IP67 rating protected the rod actuator from splashing water and other contaminants such as saw dust. Due to the rod actuator's durable construction and roller screw design, the actuator provided long life and consistent performance with minimal maintenance. Additionally due to the high shock loads of the application, a custom steel head with an integrated trunnion was specified to improve the actuators overall ruggedness. This electric actuator solution allowed the OEM to eliminate the hydraulic system.

Customer Benefit:
- Eliminated environmental risks related to contamination by leaked hydraulic fluids
- Reduced maintenance costs and increased equipment dependability
- Improved performance reliability in low and high temperatures without being susceptible to cold startup or premature failure