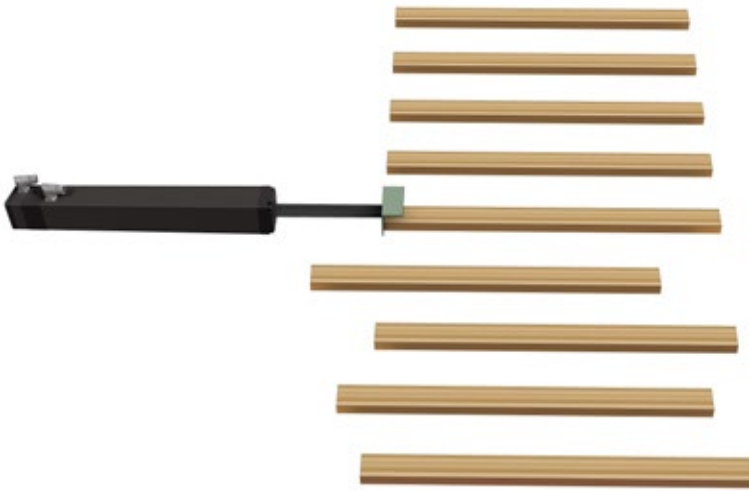


APPLICATION SOLUTION: Fence Guide

Product Family: Electric
Product Used: IMA33, Integrated Motor Actuator
Product Type: Standard

Application Requirements

Stroke: 200mm (7.87 in)
Speed: 0.25 m/sec (9.84 in/sec)
Force: 90.7kg (200 lbs)

Application Description:

Moving fencing bumpers to align boards.

Challenge:

A lumber processing equipment company needed to replace existing hydraulic cylinders used in a fencing application in order to achieve flexible positioning, reduce maintenance / contamination, and lower energy consumption. Additionally, the environment was prone to dust, debris, and the environment experienced low to high temperature fluctuations as the building was not climate controlled. Premature seal wear, issues with cold starting, and reduced performance were among the challenges caused by the temperature fluctuations.

Tolomatic Solution:

An IMA33 integrated servo motor rod-style actuator with a 5mm lead ball screw and IP67 option was selected for this application. The ball screw provided flexible positioning capabilities (infinite fencing bumper positions) required to handle the variety of board lengths & board alignment with improved accuracy / repeatability. The electric actuator solution was significantly more efficient than incumbent hydraulic technology (~80% vs. 45%). Furthermore, the electric actuator solution was maintenance-free with no leaking fluids and its seals are only used for ingress protection, not hydraulic fluid holding pressure. The IP67 rating protected the actuator from the moisture and dust present in the application.

Customer Benefit:

- Increased throughput & product quality with improved positioning, flexibility and accuracy
- Increased reliability of equipment and reduced maintenance
- Eliminated concerns of hydraulic fluid contamination
- Operated in low and high temperatures without cold startup or premature failure