

APPLICATION SOLUTION: Flying Saw Cut-off

Product Family: Electric
Product Used: MXBU63
Product Type: Modified Standard

Application Requirements

Stroke: 74 in.
Speed: 72 in/sec
Load: 125 lbs
Moments: My- 48.3 lb-in; Fx- 50 lbf
Motion Profile: Trapezoidal

Application Description:

Flying saw cut-off for veneered sheeting

Challenge:

A plywood manufacturer was using a pneumatic cable cylinder for its flying saw operation that cuts the plywood of dried veneer after the lay-up process. The pneumatic solution required large, expensive (\$8500 per year) shock absorbers on both sides of the fixture to stop the kinetic energy caused from the fast motion of the saw head. The impact of energy that was being absorbed, required frequent replacement of the shock absorbers. In addition, the pneumatic cable cylinder needed to be repaired approximately every six months from cable stretch resulting in additional expenses and downtime. A new linear motion solution needed to be employed that would reduce maintenance and operation costs.

Tolomatic Solution:

A MXBU63 electric rodless belt drive actuator was selected for this application because of the speed requirements. The actuator was mounted on its side and the open belt design of the actuator allowed sawdust shavings to fall through. A specially designed floating mount was attached to the actuator carrier to guide the saw movement.

Customer Benefit:

- Eliminate expensive shock absorbers
- Significantly reduced maintenance repair costs
- Saved over \$100,000 in a 2-year time frame
- Improved uptime and increased production