

APPLICATION SOLUTION: Fiberglass Rolling



Product Family: Electric

Product Used: Winding Roll: RSA64 RP
Vertical Conveyor: RSA50 RP
Rod-Style Electric Actuators

Product Type: Standard products

Application Requirements:

Stroke: 725 mm (28.5")

Speed: 240 mm/sec (9.44"/sec) –
500 mm/sec (19.7"/sec)

Force: 18 kN (4,000 lbf) to 19 kN (4,270 lbf)

Application Description:

Fiberglass rolling

Challenge:

A manufacturer of fiberglass automation equipment was using pneumatic cylinders to control the vertical roller and the winding roller used to package fiberglass insulation into rolls. They were experiencing difficulty controlling compression of the fiberglass and achieving their goal of 12,000 cycles per year. The electric actuators needed to fit within the size envelope of the pneumatic cylinders they replaced and still deliver the force and speed required.

Tolomatic Solution:

Using Tolomatic's online sizing tool it was determined that RSA64 would provide the force needed to move the winding roll. A RSA 50 would accommodate the force for the vertical roll. Ball or roller screws would provide the force required, ball screws were chosen because they delivered slightly higher speed to accommodate the high cycle rate and had acceptable life expectancy. Standard Tolomatic RSA actuators delivered the force and speed needed within the size constraints of the equipment. The electric actuators allow quick change-over for use with different R values of insulation. They are confident they will exceed their 12,000 cycles per year goal.

Customer Benefit:

- Removal of pneumatic cylinders and associated systems from the factory
- Fast change-over for various R-values (thickness) of fiberglass
- YMH (Your Motor Here) program accommodated the customer preferred motor choice
- Fast delivery
- Tolomatic application engineers assistance in programming the new system