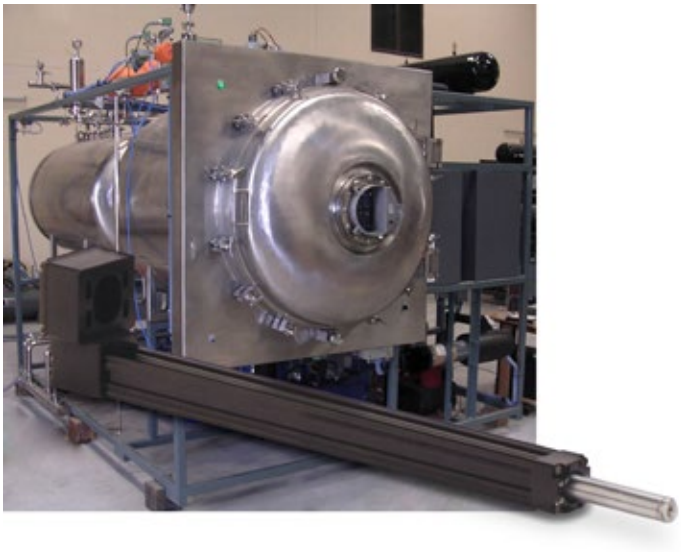
OTHR-014-E

APPLICATION SOLUTION:	Steam Injection



Product Family: Electric
Product Used: RSA12 Electric Rod Actuators
Product Type: Modified Standard

Application Requirements:
Stroke: 6.1” (154.9 mm)
Speed: >1.0”/sec (>25.4 mm/sec)
Thrust: 100 lbf (448 N)

Application Description:
Steam injection.

Challenge:
This manufacturing process required very precise, consistent metering and injection of steam. Additionally, this manufacturing process required a very compact footprint without sacrificing performance.

Tolomatic Solution:
To achieve the required performance and reduce the overall footprint a modified RSA12 with 0.125” lead ball screw and RP (Reverse Parallel) motor mount was chosen. By removing the cover from the timing belt/pulley assembly the footprint was reduced. The length of the actuator was further reduced by modifying the ends of the actuator, moving the position of the switches while still keeping end of travel switches. The customer’s chosen 23 frame stepper motor gave good positioning while managing cost and the YMH (Your Motor Here) program provided the exact motor mount on the RSA. The finished RSA12 actuator was also outfitted with a linear encoder to increase the overall resolution and position feedback of the system.

Customer Benefit:
- Small footprint allowed for use of both a ball screw and a third party stepper motor to suit their performance requirements
- Complete design allowed the customer to create a process that was previously not available
- Use of industrial grade equipment provides the reliability and precision needed for their process