

**APPLICATION SOLUTION: Theater Prop Actuation**



**Product Family:** Electric  
**Product Used:** RSA50  
**Product Type:** Modified Standard

**Application Requirements**

**Stroke:** 36 inches  
**Speed:** 8 in/sec  
**Load:** 800 lbs  
**Orientation:** Vertical  
**Force:** 2,500 lbf

**Application Description:**

Animating a series of petals in a huge light show stage globe that forms into a flower.

**Challenge:**

A premier manufacturer of moving stage displays for top tier entertainers designed an overhead lighting device that transforms from a globe into individual petals forming a flower. Each “petal” needed to be actuated independently. The entire structure needed to be as lightweight as possible to attach above the stage in diverse locations and to minimize shipping costs since the display was to be transported globally. High ticket prices and large concert revenues at each event required a highly reliable actuator solution with 100% safety and no risk of failure.

**Tolomatic Solution:**

Although pneumatic actuators would provide a lighter weight solution, safety and repeatability concerns determined that an electric actuator solution was required. A series of eight RSA50-HT rod-style actuators were selected to actuate each petal of the flower globe because of their high force capabilities, superior repeatability and proven dependable performance. The actuators were also equipped with geared reduction boxes in order to stop movement of the actuators in case of complete power loss for added safety. The actuators compact retracted size allowed for easy transportation of the globe in the closed state.

**Customer Benefit:**

- Maximum safety for entertainers and stage crew.
- Minimized space for transport.
- Reliable performance for a consistent entertainment experience .