Emerson Lifts Water Show Cannons to Greater Service Life

RESULTS
• Reduced project’s supply base by providing a full range of products
• Cut costs by configuring cylinders with corrosion-resistant Delrin® pistons
• Met the 200-psi pressure requirement
• Simplified underwater product identification and maintenance

APPLICATION
Water fountain show

CUSTOMER
Water show equipment fabricator

CHALLENGE
The fabricators of a Las Vegas water show required new lifting mechanisms to raise the fountain cannons out of the water. The new design had to protect the appearance of the bubbles when the cannons emerged from the lagoon. The lifting mechanisms required corrosion-resistant, pneumatic components that could withstand underwater operation. In addition, the actuators had to handle 200-psi water pressure. The fabricator wanted to purchase all the pneumatic components from one vendor to reduce the number of suppliers on the project.

SOLUTION
Emerson won the project for its ability to provide a complete pneumatic actuation solution for the water show. The solution included ASCO™ M-Series cylinders certified to 200 psi. The M-Series model was constructed with stainless-steel external parts and a corrosion-resistant Delrin piston. This configuration eliminated the need for a cylinder with stainless-steel internal parts — significantly reducing cost. Emerson also permitted the customer to put their part number and logo on the cylinder for easier underwater identification and maintenance.

The robust ASCO cylinders’ stainless steel construction and corrosion-resistant Delrin pistons significantly reduced costs and maintainence. The customer was pleased with the complete pneumatic solution Emerson could provide.