

Recreational Industry

High Speed Performance on the Water

CUSTOMER CHALLENGE

A racing boat manufacturer sought the ability to raise and lower the leading edge of an airfoil on a racing boat for an upcoming competition. At high speeds, the boat develops a tendency to rise above the water, at times uncontrollably, thus causing the driver to lose “traction” of the boat when water conditions warrant travel at slower speeds.

SOLUTION

Duff-Norton’s LT100-1-300P electromechanical actuators provided ideal airfoil positioning for the duration of the race. The potentiometer feedback instructed the onboard PLC to position the airfoil to an optimal angle to maximize ideal speed and traction of the boat while on the water.

CONCLUSION

Duff-Norton LT electromechanical actuators have an IP66 rating, offering protection from water splash and washdown conditions. The ability to run off of the boat’s existing battery power supply and wiring made for an uncomplicated, successful installation.



High speed boat racing attracts enthusiasts watching from the grandstands.

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Duff-Norton Product:
LT100-1-300P Series electromechanical
actuators with 12VDC motor, 300mm of
stroke length, 112 lbs. of force capability,
with potentiometer feedback.



Race boat (shown for illustrative purposes only) similar to boat modified with Duff-Norton’s LT100-1-300 Series Electromechanical Actuators.

