

CASE STUDY

Custom Couplings Meet Tough Navy Propulsion and Auxiliary Drive Requirements



As seen on
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Ameridrives Couplings was selected to provide a variety of custom coupling solutions for use aboard the U.S. Navy's fleet of Arleigh Burke-class guided missile destroyers.

The ship's propulsion drive consists of four General Electric LM2500 gas turbines which produce 100,000 total shaft horsepower (75 MW) via a dual propeller shaft design. The drive configuration allows the ships to achieve 30+ knot speeds on open seas.

Engineers at Ameridrives worked closely with the ship's propulsion drive OEM to develop custom Ameriflex and Amerigear couplings to meet the challenging drive application requirements. Both Ameriflex diaphragm and Amerigear gear couplings are incorporated within both drivetrains on the twin propeller shafts of each ship.

With a speed range up to 20,000 RPM and a peak torque capacity over 6,000,000 in.lbs. (677,908 Nm), Ameriflex high performance couplings are designed specifically to meet the rigorous demands of turbomachinery applications. Units are maintenance-free, meet API-671 requirements and feature a high torque-to-weight ratio and shot-peened 15-5 PH stainless steel diaphragms.

Amerigear couplings, with fully crowned gear teeth, are designed for higher torque, higher speed, and higher misalignment to accommodate the increased performance demands of modern, rotating equipment.



An Altra Industrial Motion Company

US (Customer Service)

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For a list of our AP sales offices:

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