

Linear Actuators Support Weapons Elevator

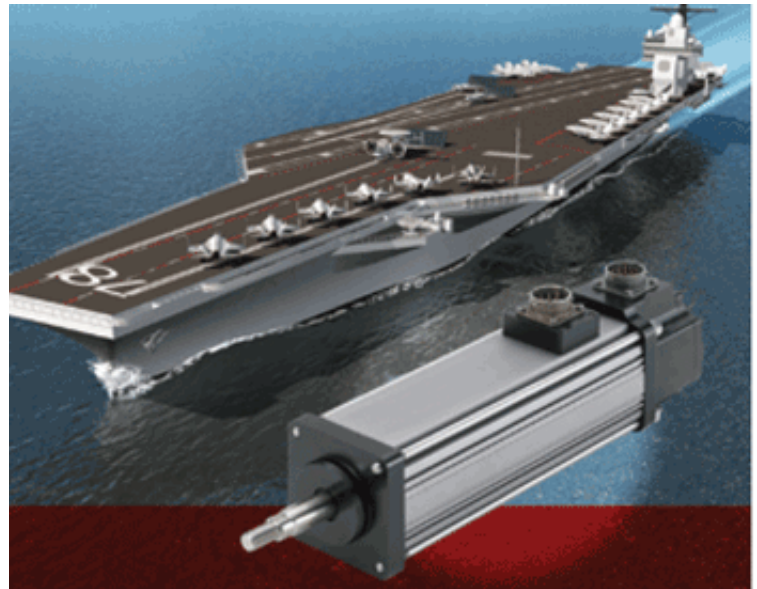
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Among the most vital material handling systems in use today are those that handle weaponry for the armed forces. Case in point: In Cincinnati, Ohio, Federal Equipment Co. is manufacturing 11 state-of-the-art advanced weapons elevators for the latest U.S. aircraft carriers. Carrying up to 24,000 lb at speeds to 150 ft/min., the elevators vastly improve payload capacity over previously designed weapons handling systems. The next-generation Aircraft Carrier Gerald R. Ford, also known as CVN-78, is one new design for Northrop Grumman Shipbuilding and the U.S. Navy.

Linear actuators are among the new carrier's components. GSM30 linear actuators from Exlar Corp., Chanhassen, Minn., were selected to fire locking pins to keep the elevators in position at each deck level. The actuators combine a brushless servomotor, inverted roller screw, and an encoder/resolver into a single compact assembly.

The brushless servo design of the GSM Series actuators allows them to be used in advanced closed-loop servo systems where electronic control of positioning and velocity is required. In these systems, position feedback can be provided in different forms to match user specifications,

including resolvers, encoders, or internally-mounted linear position feedback sensors. The inverted roller screw mechanism converts the brushless motor's rotary motion into high-speed, high thrust linear motion.



EGSM30 linear actuators fire locking pins to keep elevators in position at each deck level on a new class of U.S. aircraft carriers.

For more information, visit exlar.com.