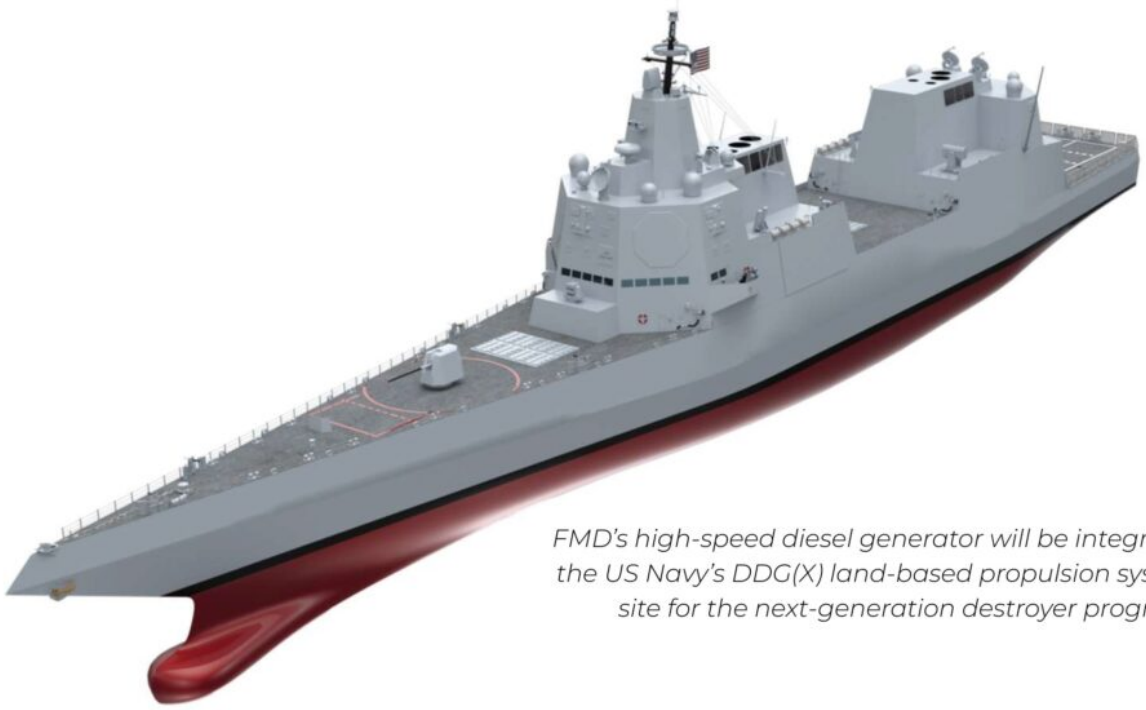
Fairbanks Morse Defense Awarded Contract for FM 175D Engine to Support U.S. Navy's DDG(X) Program



FMD's high-speed diesel generator will be integrated into the US Navy's DDG(X) land-based propulsion system test site for the next-generation destroyer program

From Fairbanks Morse Defense

Fairbanks Morse Defense (FMD) has been awarded a contract to provide the U.S. Navy with an FM 175D high-speed diesel generator engine for integration into the DDG(X) land-based propulsion system test site, supporting the U.S. Navy's goal of reducing design risks as it continues developing the next-generation platform.

"Fairbanks Morse Defense has a long history of delivering mission-critical power and propulsion solutions for the U.S. Navy," said Mike Clark, Chief Operating Officer of Fairbanks Morse Defense. "The selection of the FM 175D for this important land-based test highlights the superior power density needed on modern surface combatants, ensuring the

DDG(X) has the energy needed to operate advanced combat systems while maintaining operational efficiency.”

Designed to succeed the Flight II Ticonderoga-class cruisers and the Flight I/II Arleigh Burke-class destroyers, the platform is currently in the design and feasibility stage, with construction expected to begin in 2032.

As the Navy’s next-generation large surface combatant, DDG(X) will integrate a wider array of advanced systems, demanding unprecedented levels of power generation. The ship is designed with an Integrated Power System (IPS) to generate, convert, and distribute power for ship operations. The DDG(X) electrical plant is expected to deliver more than 75 megawatts of power for standard operations while enabling high-energy equipment, advanced sensors, and enhanced propulsion systems.

The FM 175D propulsion system generator set can produce 3.8 MW of power, which is considered among the best in class for power density. Unlike conventional high-speed engines, the FM 175D delivers significantly greater power while maximizing fuel efficiency, making it an optimal choice to reduce the life cycle costs of the DDG(X) platform. It has a power output range of 1,740 to 4,400 kilowatts and operates at 1,800 to 2,000 RPM.

Fairbanks Morse Defense launched the FM 175D into the United States in 2023 to meet the growing demand for high-density power system solutions in the naval defense industry. As the most power-dense engine available in the U.S. maritime sector, the FM 175D is well-proven in maritime defense and commercial applications worldwide, offering increased electrical output for modern naval operations and combat systems.

The FM 175D is available in 12, 16, or 20-cylinder configurations with a 175mm bore and is capable of driving mechanical propulsion systems or generators for onboard power generation.