DEFENDOR

OUTSTANDING PERFORMANCE FOR UCAV AND OWE MISSION EXECUTION LONG RANGE: > 1000KM | HIGH SPEED: UP TO 650KM/H | HIGH PAYLOAD | LOW COST



- Introducing the next generation of uncrewed aircraft and propulsion system technology. Rotron's breakthrough Fan Drive System (FDS) redefines the limits of long-range strategic air systems, delivering a step-change in fuel efficiency and performance.
- Engineered specifically to achieve high combat mass, utilising non-complex supply chains for high-volume, cost-efficient manufacture to outcompete conventional turbojet and turbofan architectures.
- The FDS achieves up to four times the operational range while matching the speed and agility of gas turbines across the 50 -450kg payload class - at a fraction of the cost.



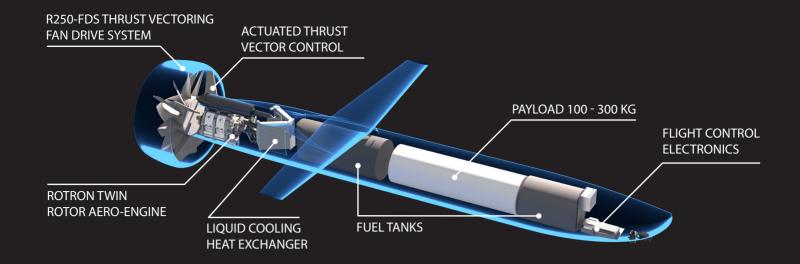
ROTRON R250-FDS PROPULSION SYSTEM

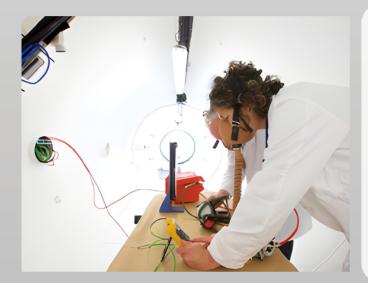
Rotron is shaping the future of uncrewed air systems – delivering an unrivalled performance-to-cost ratio and exceptional mission capability.



MADE IN BRITAIN







ADVANCED ENGINE TEST CELL FACILITY

Rotron Aerospace's state-of-the-art on site test facility, including 4 certified engine dynamometer and 150m³ hyperbaric test chamber, is the cornerstone of its commitment to innovation, quality, and performance assurance. Designed to rigorously evaluate engines and propulsion systems under real-world conditions - down to -30 degrees and up to 60,000ft altitude. The facility also includes a wide range of testing protocols including endurance, thermal, vibration, and performance validation. Equipped with advanced instrumentation and data acquisition systems, it enables precise measurement and analysis of engine behaviour across various operational scenarios.

MATURE FADEC AND DUAL REDUNDANT SYSTEM ARCHITECTURE

Rotron Aerospace's MAA-certified FADEC (Full Authority Digital Engine Control) system is a highly advanced and dependable engine management solution, offering precise electronic control over all aspects of engine operation. At its core is an integrated governor control that automatically regulates engine RPM by adjusting fuel and throttle inputs in response to load conditions. This functionality is further enhanced by real-time stoichiometric combustion gas analysis, which continuously optimizes fuel efficiency. These features, combined with Rotron's proprietary fuel delivery system ensure exceptional performance, operational efficiency, and safety across a wide range of demanding aerospace environments.



ABOUT ROTRON AEROSPACE



Rotron Aerospace are specialists in designing and manufacturing UAS propulsion systems and VTOL aero-systems. As industry leaders and operators of long-range VTOL air systems, Rotron Aerospace enables safe and cost effective aerial intelligence solutions for surveillance, inspection, search and rescue missions, cargo delivery and aerial deployment of FPV drone systems beyond visual line of site.

Founded in 2008 to create the lightest, most powerful, and vibration-free power units, Rotron Aerospace now supplies some of the world's largest aerospace OEMs and UAS manufacturers.

