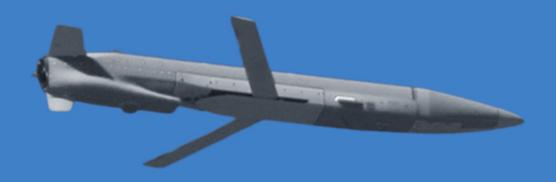


TJ150 MILITARY ENGINES



High Performance Propulsion for Tactical Missiles and UAVs







High Performance Propulsion for Tactical Missiles and UAVs

Pratt & Whitney's TJ150 is a high performance turbojet engine designed for expendable and limited life operation in missiles and unmanned aerial vehicle applications.

TJ150 PRODUCT FACTS



UNMATCHED PERFORMANCE

The engine combines the simplicity of a single-spool architecture with high performance turbomachinery components to achieve unmatched performance in an extremely compact installation. The engine's state-of-the-art thrust/frontal area characteristic allows the TJ150 to install in minimal cross-section vehicles where other engines simply do not fit.



RELIABILITY

- The TJ150 has a single-stage, mixed flow compressor, which achieves an extraordinary pressure ratio in only one stage of compression. A conventional radial turbine configuration provides outstanding efficiency in a single stage.
- The combustor utilizes a simple spray ring with a unique fuel injection system to provide extremely reliable starting characteristics and excellent blowout margins. The TJ150 has demonstrated pyrotechnic starts to 35,000 feet and windmill starts at lower altitudes.



COMMONALITY

- Over 2,600 TJ150-1 engines have been delivered to Raytheon Missile Systems for their MALD® family of decoys and jammer vehicles.
- Other MALD® applications are under study, such as a "delivery vehicle" for generic payloads. All variants will benefit from the use of a common engine, the TJ150-1. Another engine model, the TJ150-3, is currently in development to power the MBDA Missile Systems' SPEAR (Selective Precision Effects At Range) medium range, precision strike tactical missile under the sponsorship of the UK Ministry of Defence.

ENGINE SPECIFICATIONS

Thrust Class	170 lbs
Туре	Single Spool Turbojet
Engine Control	FADEC (Full Authority Digital Engine Control) or Customer Supplied (P&W Supplies Control Logic)
Engine Architecture	Single-Stage Mixed Flow Compressor Annular, Reverse-Flow Combustor Single-Stage Radial Flow Turbine Convergent, Fixed Area Jet Nozzle
Electric Power	Up to 2.0 kW from Embedded PMG (Permanent Magnet Generator)
Engine Life	Up to 2 Hours