

# THE SPARTAN TDI-J45



The TDI-J45 turbojet engine is designed to deliver affordable military-grade performance in compact form. TDI engines are tested for reliability and survivability on airborne platforms.

## Engine Specifications

Parameter	TDI-J45
Uninstalled Maximum Thrust at Sea-Level Static	30 lb <sub>f</sub> (13.3 daN)
Overall Length (with minimum reference nozzle)	9.1 in (231 mm)
Nominal Engine Case Diameter	4.5 in (114 mm)
Uninstalled Engine Weight	9 lb <sub>m</sub> (4 kg)
Maximum Operating Altitude / Mach Number	35,000+ ft (10,668 m) / 0.85+
Maximum Continuous Power Generation	1.2 kW
Approximate Maximum EGT	1,600 °F (871 °C)
Proven Starting Methods	Pyrotechnic, Windmill
Fuel Compatibility	JP-10, JP-8, JP-5, JET-A, JET-A1

High-Performance, Low-cost Propulsion for Military UAS and Tactical Missiles

# TDI-J45 Turbojet Engine

## PRODUCT FACTS

### Compact and Power-Dense

- 4.5" O.D., 9" length
- Modular exhaust nozzles adaptable to any installation
- Thrust up to 30 lb<sub>f</sub> sea-level static
- Best-in-class TSFC from state-of-the-art turbomachinery
- Integral generator delivers up to 1.2 kW of continuous power

### Established 'Turn-Key' Propulsion Solutions

- Nearly 40 years of development experience with major defense primes
- 100% designed and produced in the USA
- Scalable production capacity up to 10,000 engines/year
- Fuel and explosives handling/storage and support
- Integration testing, flight test, and full lifecycle support

### Simple, Robust Architecture & Subsystems

- Engine and subsystems tested for survivability on air-launched platforms
- Able to withstand high acceleration from ground-launched applications
- Reliable start and operability validated via multiple captive-carriage flight tests

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