

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 @ SLS	30 lbf (13.3 daN)
Overall Length (with minimum ref. nozzle)	9.1 in. (231 mm)
Nominal Engine Case Diameter	4.5 in. (114 mm)
Uninstalled Engine Weight	9 lbm (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

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 300 lb_f SLS
- 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