



Rolls-Royce

Trent 1000

Optimised for the Boeing 787 Dreamliner Family



TRENT1000

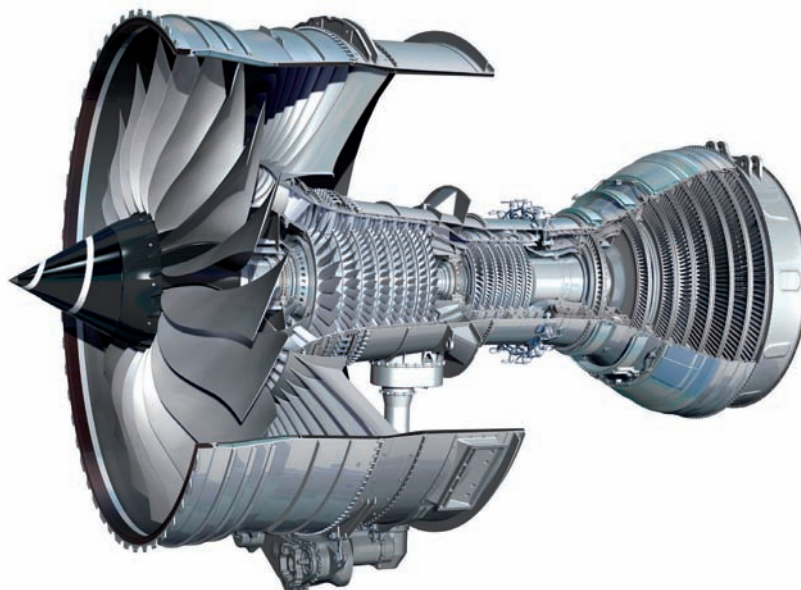
Trent 1000

Optimised for the Boeing 787 Dreamliner Family

The Trent 1000 is the best engine for the Boeing 787 Dreamliner and is now in service on the Boeing 787-8.

The Trent 1000 is the launch engine for all variants of the Boeing 787.

- Optimised, low-risk solution
- Best lifetime fuel burn performance
- Quietest, cleanest and lightest engine
- Certified up to 74,000lb with 330 minutes ETOPs
- Built-in maturity, experience and reliability



SLS, flat rated to ISA +15°C Thrust 53,000 - 74,000lb Bypass ratio 10.0 - 11.0 Inlet mass flow 2400 - 2670lb/sec

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Part of the Trent family, the three-shaft architecture of the Trent 1000, tailored to its specific application, adds value to operators and owners. Advanced technologies such as soluble core high pressure turbine blades provide life-cycle cost benefits. Smart design features such as the 3D aero design compressor and low-hub-tip ratio fan ensure the engine is efficient and reliable across a wide range of operations. These attributes result in the best engine for the Boeing 787, both commercially and technically.

The Trent 1000 delivers the best economics with through-life fuel burn and maintenance cost optimisation. The Trent 1000 architecture leads to significantly lower deterioration than its competitors. Its unique intermediate pressure compressor power offtake, designed specifically for the Boeing 787 Dreamliner, offers even greater advantages for short-range operations. A robust programme of continuous product improvement ensures that it consistently delivers best lifetime value for our customers.

The Trent 1000 design ensures the greatest availability and lowest maintenance burden. The design incorporates heated engine stators, 20 per cent more predictive monitoring capability, and 30 per cent lower scheduled line maintenance compared to alternative powerplants. Operational confidence is provided through a comprehensive suite of through-life services, including TotalCare®.

The Trent 1000 has industry-leading environmental credentials. A slower fan speed and low jet velocity make it the quietest engine on the Boeing 787 with over 6dB cumulative noise advantage on the 787-8. The Trent 1000 also has significant margin to emissions legislation and through-life fuel performance of the Trent 1000 will give a significant reduction in CO₂ compared to existing engines.

The Trent 1000 is the lowest risk engine for the Boeing 787. The engine was certified on time to 74,000lb and gained 330 minutes ETOPs certification ahead of EIS, reinforcing its durability and reliability. The Trent 1000 has powered the majority of Boeing's 787 flight testing to date and entered service as the most mature engine on the aircraft.



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