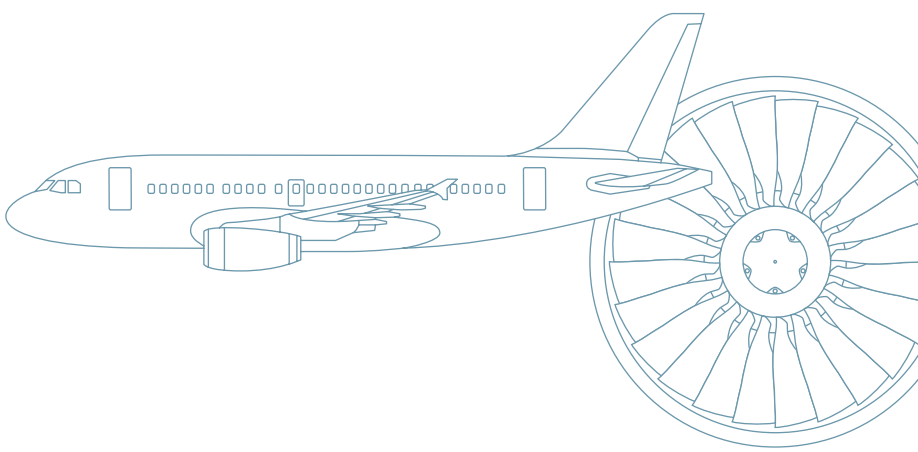
MTU Aero Engines

PW6000 turbofan engine

The innovative power



PW6000 – technology features

The PW6000 is being developed and produced in cooperation between Pratt & Whitney, MHI and MTU Aero Engines. The new engine is designed for the 100-passenger aircraft market segment and covers the thrust range from 18,000 to 24,000 pounds.

The engine incorporates a number of advanced technologies to reduce fuel consumption and lower exhaust emissions and noise. A prominent design feature is the overall reduction in compressor and turbine stages, which substantially contributes to lower maintenance and ownership costs.

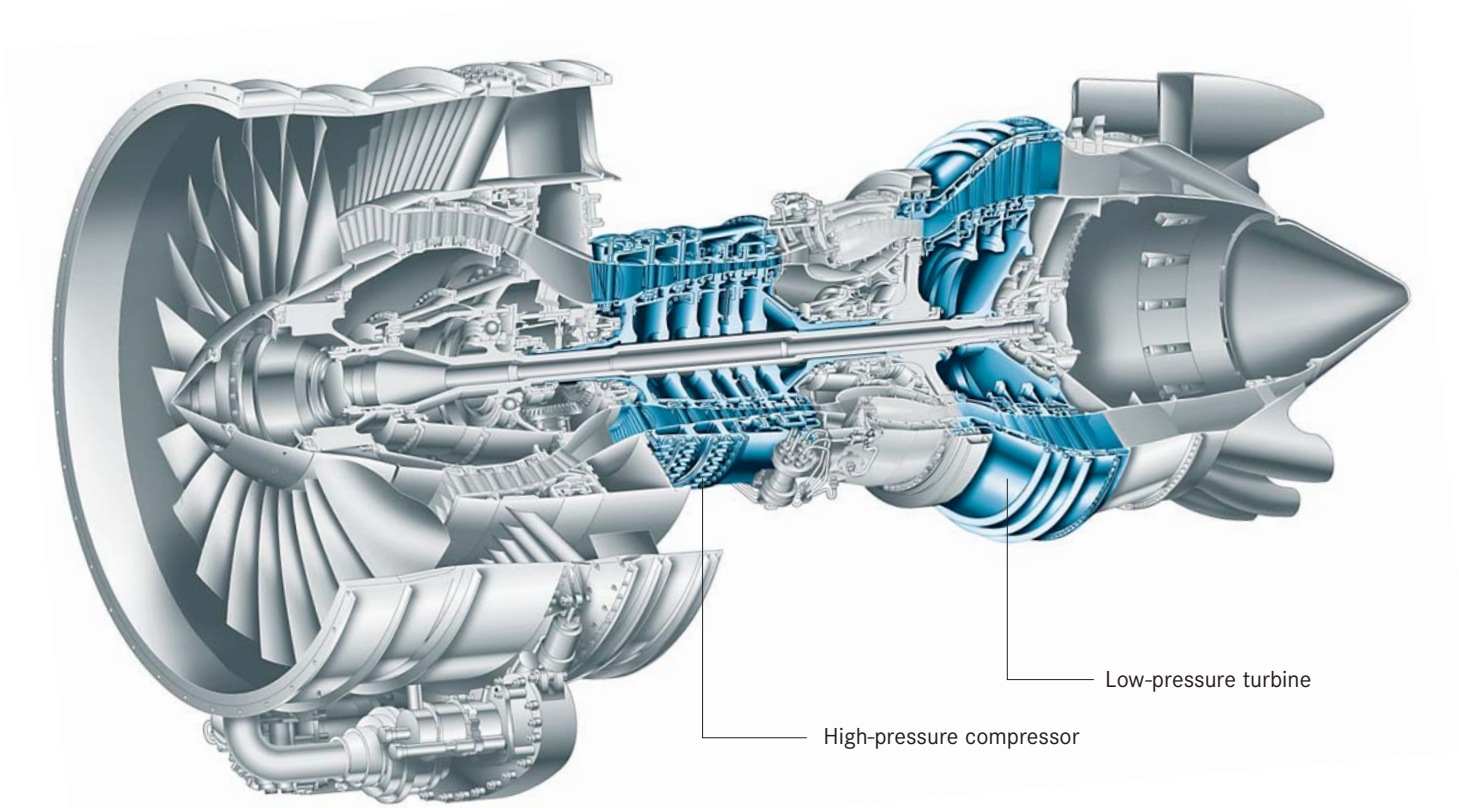
MTU holds design and manufacturing responsibility for the high-pressure compressor and the low-pressure turbine. Final engine assembly and pass-off test are performed at MTU facilities, as well.

MTU's six-stage HPC fulfilled and even exceeded performace requirements during engine and rig testing in 2002 and 2003. The design incorporates MTU's long-standing experience in the field of compressor technology. The LPT represents another example of technology enhancements based on lessons learnt from other MTU programs including Engine 3E.

Engine type certification was obtained in 2004 (U.S.) and 2005 (Europe). The A318/PW6000 flight test program was completed in 2006 and the first PW6000-powered A318 entered service in May 2007.

Design goals:

- Low acquisition cost
- Low maintenance cost
- Long on-wing time
- Best-in-class noise and emissions
- Proven reliability at entry into service
- Superior FOD/ice resistance
- Reduced part count
- Simplified low-cost diffuser/ combustor systems
- More reliable externals
- Longest turbine life (material, cooling)



PW6000 engine specifications

	PW6122A	PW6124A
Take-off thrust	22,100 lbf 98.3 kN	23,800 lbf 105.9 kN
Bypass ratio	5.0:1	4.8:1
Overall pressure ratio	26.1:1	28.2:1
Weight (dry engine, with EBU's supplied by the engine manufacturer)	5,400 lbs 2,449 kg	5,400 lbs 2,449 kg
Diameter, fan tip	56.5 in 1,435 mm	56.5 in 1,435 mm
Length	108.2 in 2,748 mm	108.2 in 2,748 mm

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