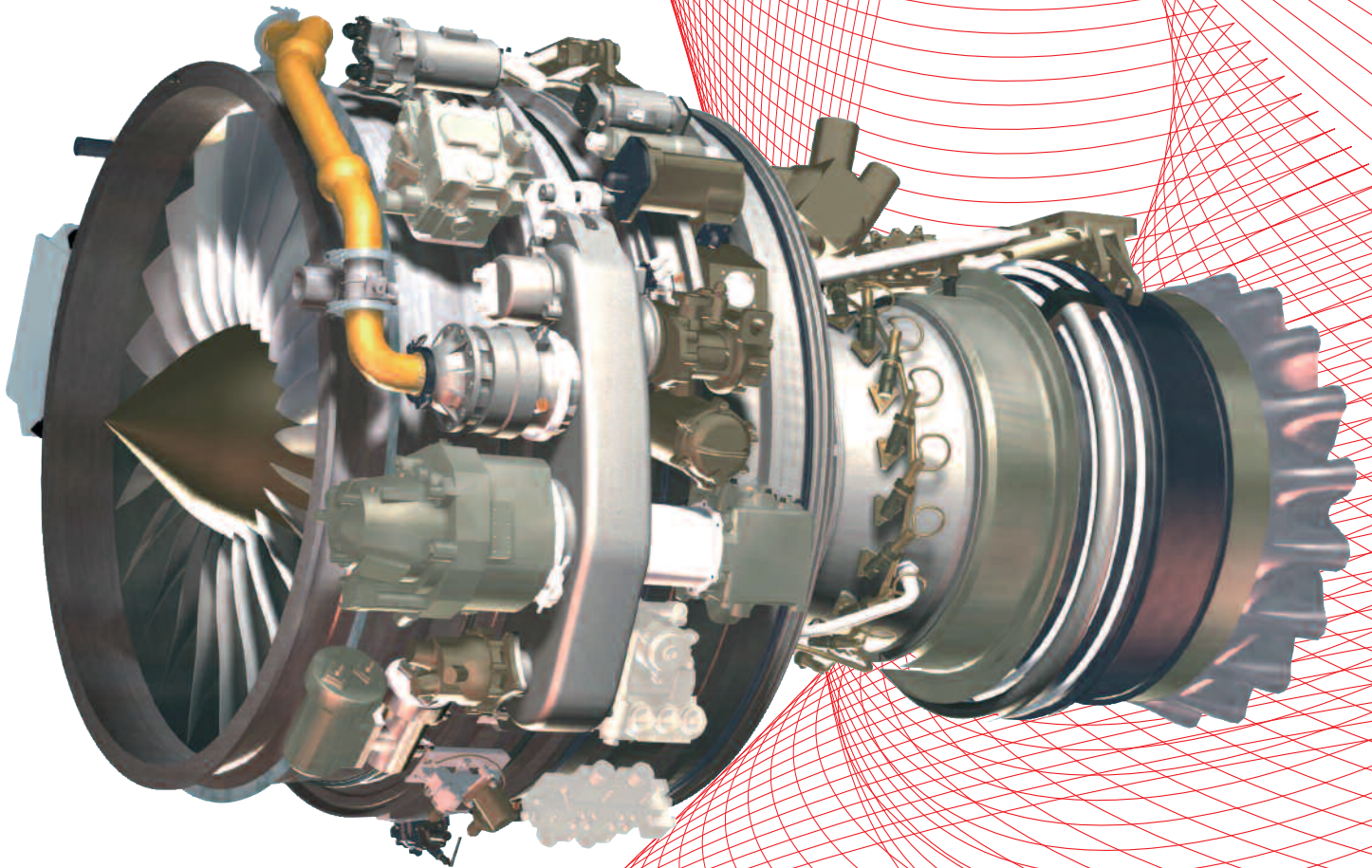




SaM146

COMMERCIAL AIRCRAFT ENGINES



COMMERCIAL AIRCRAFT ENGINES

- **One engine for an entire family of aircraft (70 – 120 seats)**
- **A complete propulsion system: engine, nacelle and equipment**
- **Purpose-designed to meet the requirements of the regional jet market**

The SaM146 engine is developed by PowerJet, a joint company of Snecma (SAFRAN Group, France) and NPO Saturn (Russia). Purpose-designed for regional jets and featuring the latest technologies – all proven in service – the SaM146 has all the advantages needed in this very competitive market, where customers demand high dispatch reliability, low cost of ownership,

strong customer support and environmental friendliness.

PowerJet is in charge of all aspects of the SaM146 engine program: design, production, marketing, sales, support and services. Snecma is responsible for the core engine, control system, including the full authority digital engine control unit (FADEC), accessory drive, engine integration and flight testing. NPO Saturn is responsible for the low pressure section, engine assembly and ground testing.

The SaM146 engine powers the new Sukhoi Superjet 100 family of regional aircraft.

High dispatch reliability

The regional jet market demands purpose-designed engines, assuring frequent flights and quick turnaround, with no room for down time. PowerJet meets this need through a multifaceted

approach with optimized design and enhanced maintainability.

The result is significantly longer life onwing, higher dispatch reliability and lower maintenance costs.

Low cost-of-ownership

The SaM146 features advanced and proven technologies, to ensure cost-effective commercial airline service.

It features a single-stage high-pressure turbine and its high-pressure compressor has fewer stages and fewer parts than all competitors. This helps reduce maintenance costs as well as fuel consumption.

The reliability and efficiency of the SaM146 are based on Snecma's experience with the CFM56*. The upshot is a significant reduction in cost of ownership.

Strong customer support and wide range of services

PowerJet will set a new standard in Customer Support by delivering local services to customers anywhere in the world.

PowerJet is the single point-of-contact for aftersales services, with a team dedicated to each customer. Our customer support organization draws on the extensive experience of Snecma (via CFM) and NPO Saturn to meet all airline expectations. Comprehensive by-the-hour contracts will be offered by PowerJet, spanning a wide range of services.

Environmental-friendliness

The SaM146 meets the most stringent environmental standards in terms of both emissions and noise.

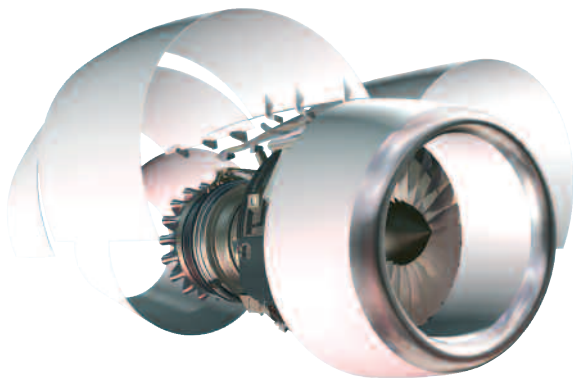
Engine commonality

Spanning 13,500 to 17,500 pounds of thrust, the SaM146 engine can power an entire family of aircraft from 70 to 120 seats, which is an important operational advantage for airlines.

ENGINE FEATURES	LOW RATING	HIGH RATING
• Thrust class with APR** (lb)	15,400	17,500
• Takeoff thrust (lb)	13,500	15,400
• Bypass ratio	4.43	4.43
• Maximum climb thrust (lb)	3,640	3,740
• Overall pressure ratio at max. climb	27.53	27.97
• Cruise SFC (lb/ h/lb)	0.629	0.629
• Fan diameter	48.20	48.20
• Length (mm)	2.070	2.070

* CFM56 engines are made by CFM International, a 50-50 joint-venture of Snecma (SAFRAN Group) and General Electric Co.

** Automatic Power Reserve.



NPO SATURN

PowerJet