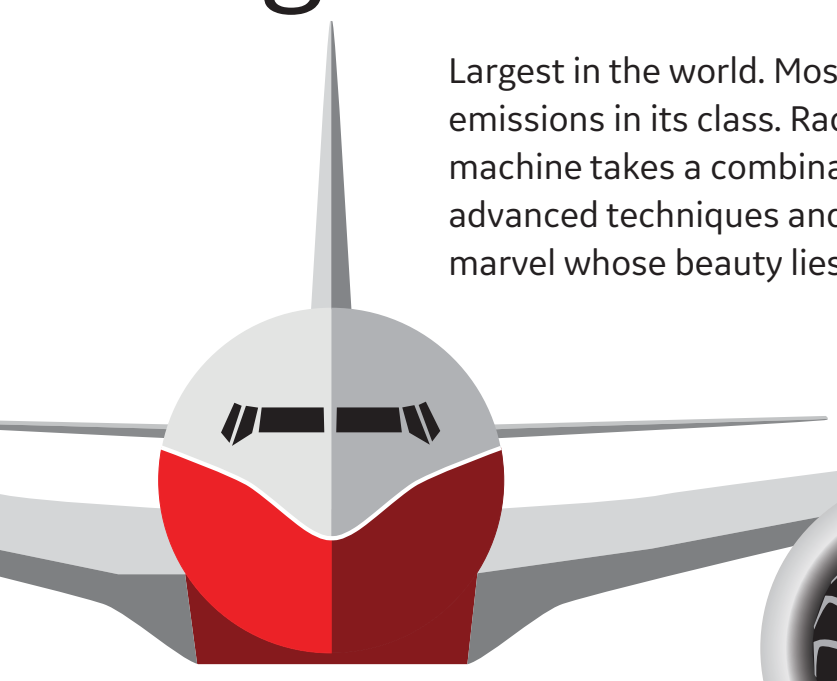
GE AVIATION

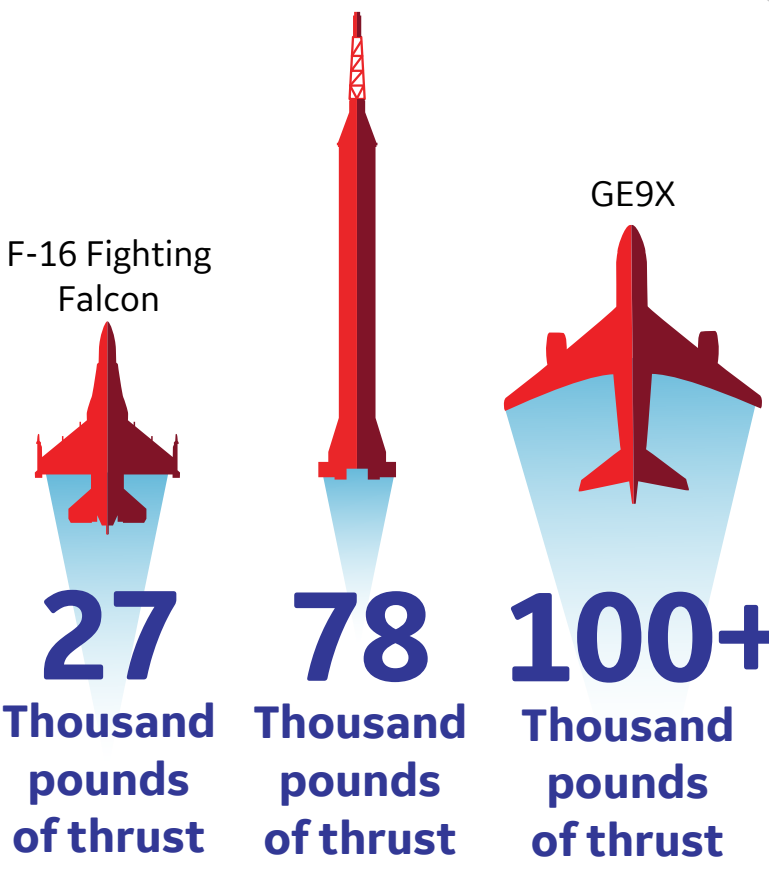
The GE9X Engine
Explore The World's Largest Jet Engine

Largest in the world. Most fuel-efficient. Quietest. Lowest emissions in its class. Racking up this many superlatives in one machine takes a combination of brawn and brains. Built with advanced techniques and materials, the engine is an engineering marvel whose beauty lies in the details. Have a look.



Fan Diameter

134
inches

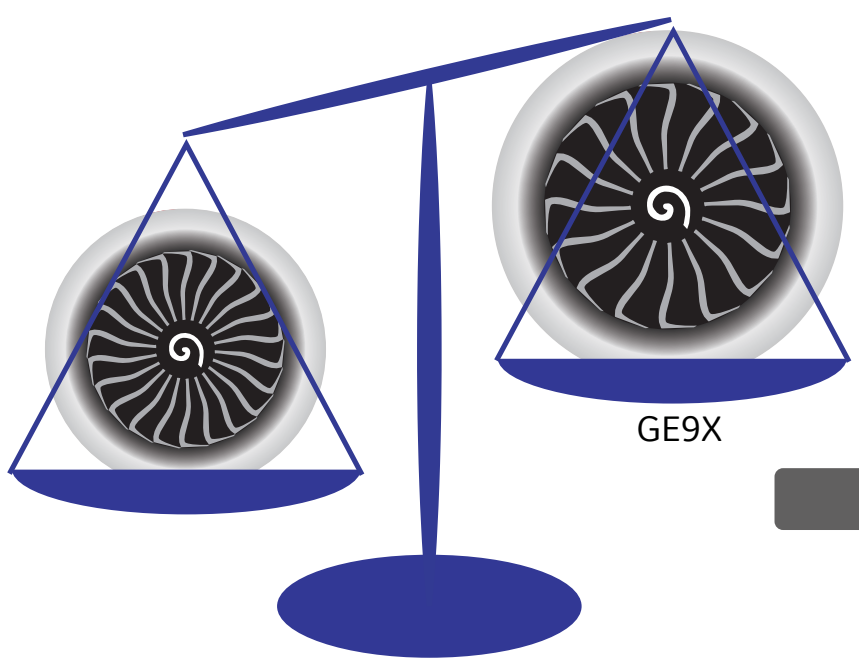


27
Thousand pounds of thrust

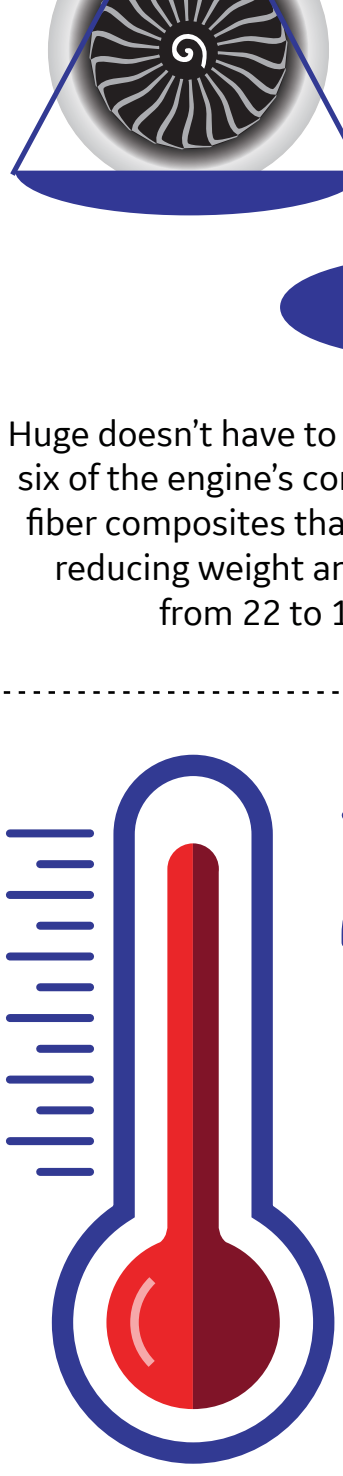
78
Thousand pounds of thrust

100+
Thousand pounds of thrust

The GE9X was designed to generate more than 100,000 pounds of thrust — several times more than the thrust of many fighter jets, and also more than the rocket used in America's first manned space flight.

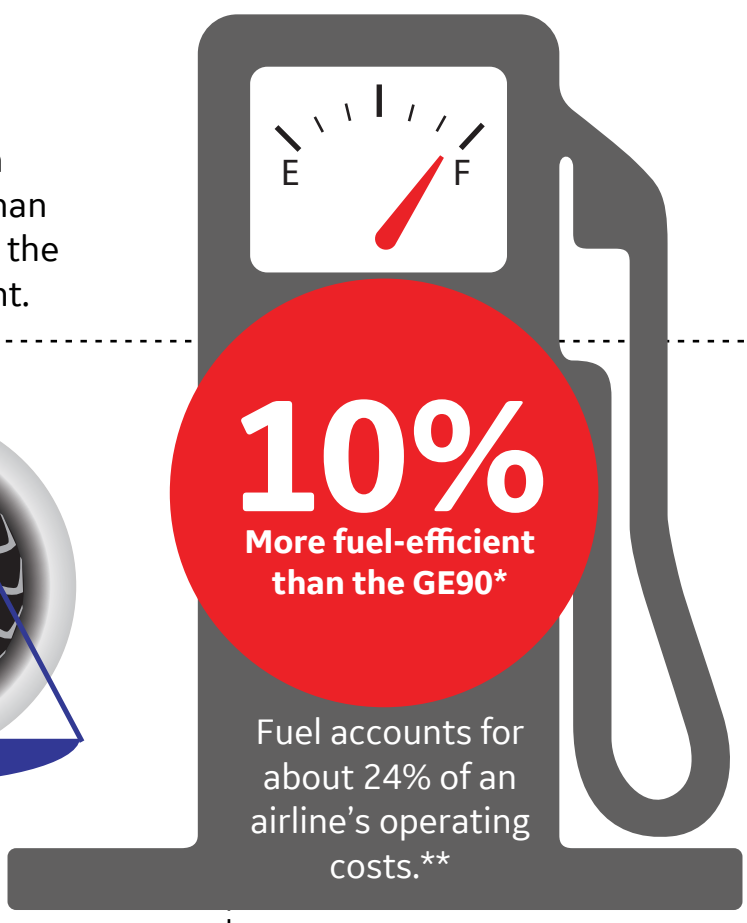


Huge doesn't have to mean heavy. GE engineers 3D-printed six of the engine's components and used advanced carbon fiber composites that are tough but lighter than titanium, reducing weight and cutting the number of fan blades from 22 to 16, compared with the GE90.



2,400°
Fahrenheit

Parts made from tough-as-steel, heat-resistant ceramic matrix composites hold up to temperatures approaching a searing 2,400° Fahrenheit, where even the most advanced alloys grow soft. These lightweight materials boost fuel burn, engine performance and durability.

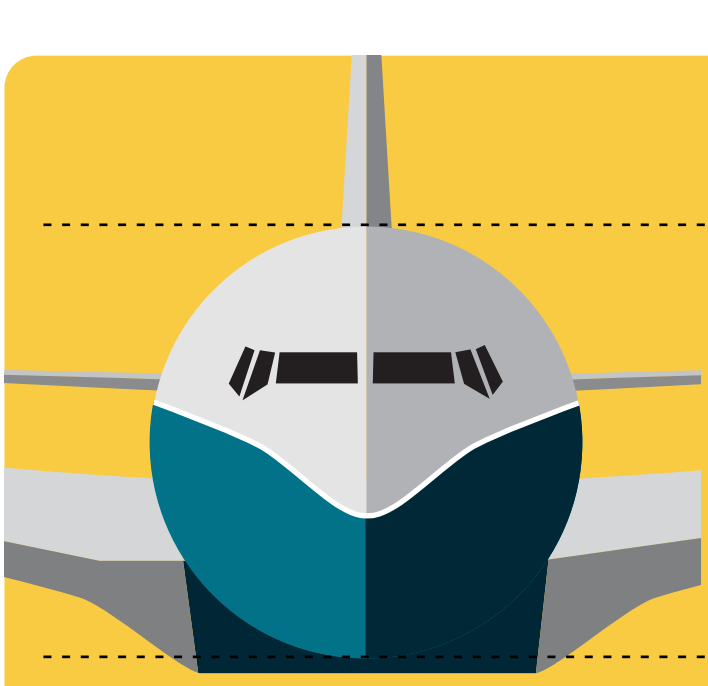


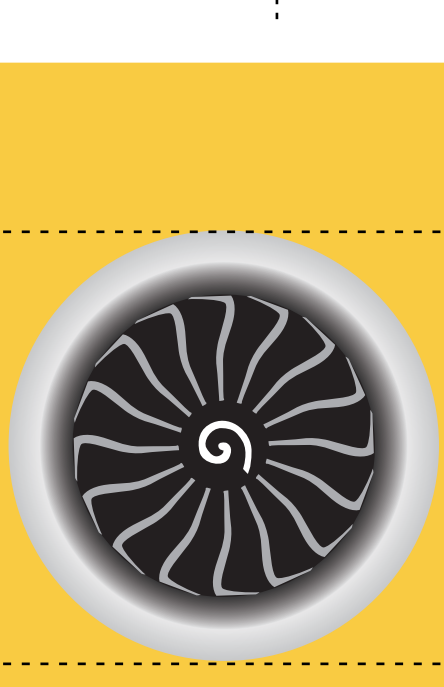
10%
More fuel-efficient than the GE90*

Fuel accounts for about 24% of an airline's operating costs.**

600
GE9X engines

Big engine, big demand. GE Aviation has already received orders from airlines including ANA, British Airways, Cathay Pacific, Emirates, Etihad Airways, Lufthansa, Singapore Airlines and Qatar Airways.





The whole engine is as wide as the body of an entire Boeing 737.

3,000
Simulated takeoffs and landings

The engine underwent hundreds of hours of grueling tests in which it was pelted with ice and exposed to dust and debris — all before it had even left the ground. The GE9X took its maiden four-hour flight aboard GE's Flying Test Bed in March 2018.

*The GE9X engine is designed to achieve 10% lower specific fuel consumption (SFC) compared to the GE90-115B.

**According to 2019 International Air Transport Association (IATA) data.