

# GE Aviation Test Services: Rotor Spin Testing

Our rotor spin test facilities cover a large range of sizes and speeds. Capabilities include LCF/HCF, ballistic impact (static), as well as destructive rotating impact and blade out testing. Measurements include rotor clearance, rotor strain, high speed video, as well as traditional measurement types. Complete test design and development capabilities provide a complete turnkey solution.

Extensive process development from decades of test experience as well as automated control and data systems provide efficient test execution with very high first time yield. All testing can be augmented by instrumentation design & application and custom tools and fixtures for each test.



## **Test Capabilities**

LCF/HCF Rotor Testing

**Pneumatic Rotor Excitation** 

LDV w/Derotator Strain Measurements

Impact/Blade Out Capabilities

Large Rotor Unbalance Capacity

#### **Facilities**

- Vertical Spin Pits
- Large Horizontal Drives
- Inert Gas & Vacuum Environments
- High Speed Video
- Ballistic Impact Testing
- Gas Gun Calibration
- Explosives Development
- Full Local Support Capabilities

GE's range of test services covers the range of Technology Readiness Levels, and are available for research, engineering, product development, and product improvement testing, for aviation and power generation applications.

### **Facilities**

Vacuum Spin Pits (3)	
Maximum Speed Range	40,000-125,000 rpm
Maximum Drive Power	15-900 HP
Maximum Test Article Diameter	1.6-7.5 ft
Large Rotor Facilities (7)	
Maximum Speed Range	3,000-48,000 rpm
Maximum Drive Power	1,500-8,600 HP
Maximum Test Article Diameter	4-18 ft
Maximum Unbalance Capability	60,000-350,000 lbf

## **Support Capabilities**

GE has extensive capabilities for a turnkey test solution to meet your needs:

Assembly & teardown in segregated facilities

Instrumentation design, application, leadout, and checkout

Design and build of tooling & support hardware

Full customer data segregation





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