



58 Test Bed Rolls-Royce, Derby

Design and Build of a £14M - 150,000lb Test Cell

Cullum were contracted by Rolls-Royce Aerospace to Design and build a Multi Engine Development, Certification and Production Pass-Off Test Cell.

The Test Cell referred to by Rolls-Royce as Test Bed Number 58 is capable of testing the latest family of high thrust engines including the Trent 900 (Airbus 380) and the new Trent 1000 for the Boeing 787 Dreamliner.

The test cell being a global first allows FAA and CAA certification testing of Fan Blade Off (FBO), Rain, Hail Ingestion and Cold Start.

The turnkey project involved resource from design, manufacture, installation and projects management.

The Cullum scope included:

- Design and Build of Test Cell
- Design and Build of Engine Handling Preparation Shop
- Automated Engine Handling System
- Design of Thrust Cradle
- Design and Manufacture of Air Intake System
- Exhaust Detuner
- Air Start System
- High Resolution Camera System
- Fan Blade Off Test Equipment
- Cold Start Test Equipment