

Fatigue Testing of Airframe Structures

Customer:

Europe based aerospace company

Loadcell:

F204-Z3085 50kN

Generic Type:

Universal cylindrical loadcell

Special Features:

Extraneous force immunity



The customer required a number of loadcells for fatigue testing of airframe structures. The loadcells themselves would be subject to the same cyclic loads as the structure under investigation and therefore must be built to withstand these tests.

Novatech was able to design a robust, fatigue rated loadcell based on its standard design F204 loadcell. The loadcell was designed with a high polar moment of inertia and therefore high extraneous force immunity.

The effects of Sideload and moment immunity were tested in house. The error was less than 0.3% of the rated load for a combined bending moment of 290Nm and a side load of 400N.

