Jet Engine Thrust Test
Load Cells

Industry: Aerospace

Summary

Customer Challenge

A customer wants to conduct a static jet engine thrust test that can accurately determine the engine's thrust, burn time, chamber pressure, and other parameters, providing invaluable data to propellant chemists and engineers. They need a high accuracy load cell with excellent repeatability to withstand thrust forces in very harsh environments.

Interface Solution

From ignition to burn-out, Interface's 1000 High Capacity Fatigue-Rated LowProfile™ Load Cell is ideally suited based on their performance for this application. The load cell reacts to the thrust forces produced by the jet engine and the signals are collected and recorded to create a "thrust curve" of the engine.

Results

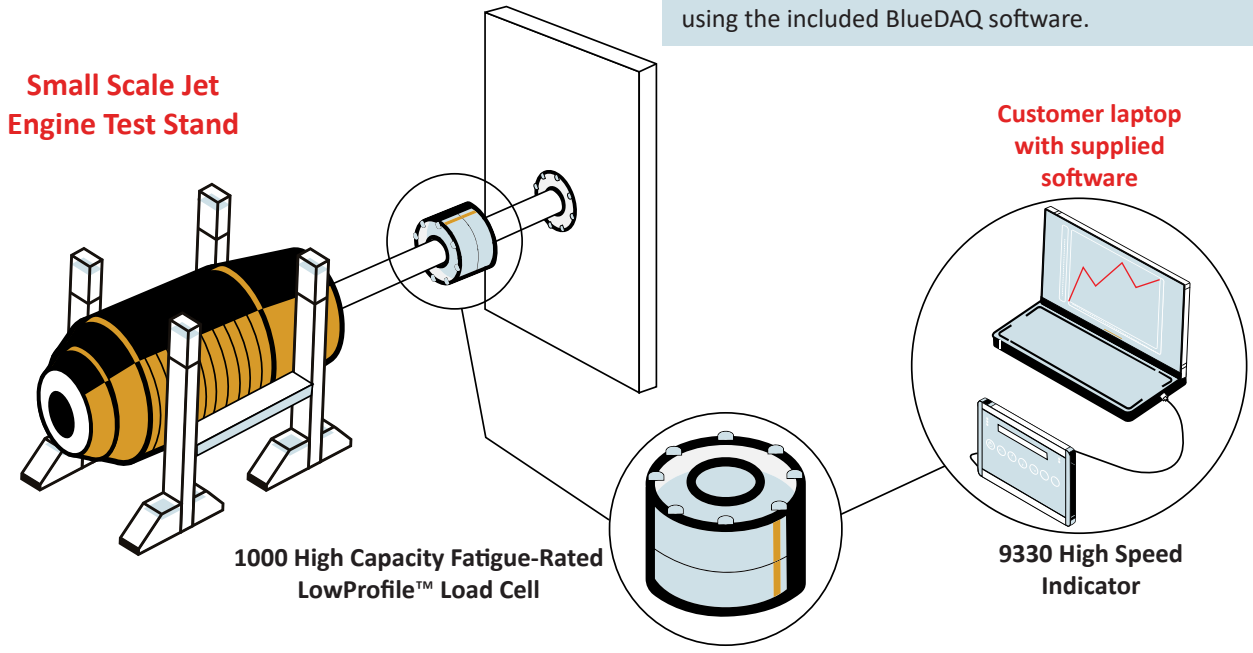
The performance of an Interface LowProfile™ Load Cell allows engineers to be confident in the data acquired from the static testing. Additionally, the repeatability of the load cell results in reduced time between tests, making static jet engine thrust testing more efficient.

Materials

- 1000 High Capacity Fatigue-Rated LowProfile™ Load Cell
- 9330 Battery Powered High Speed Data Logging Indicator with included BlueDAQ software
- Customer PC or Laptop

How It Works

1. The 1000 High Capacity Fatigue-Rated LowProfile™ Load Cell is installed into the static test stand.
2. The jet engine is ignited and produces a full thrust.
3. The 1000 High Capacity Fatigue-Rated LowProfile™ Load Cell absorbs the thrust force and outputs a signal directly to the 9330 High Speed Data Logger.
4. Data is measured and recorded on the customer's laptop using the included BlueDAQ software.



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