

**Some Of Our Other  
Services Include:**

- System Maintenance
- On-site Installation and Commissioning
- Trials Maintenance
- Data Collection Analysis and Reporting
- Stress Analysis
- Design Evaluation
- Service Contracts
- Torque Trials
- Special Inspections and Assessments
- Service Training Course

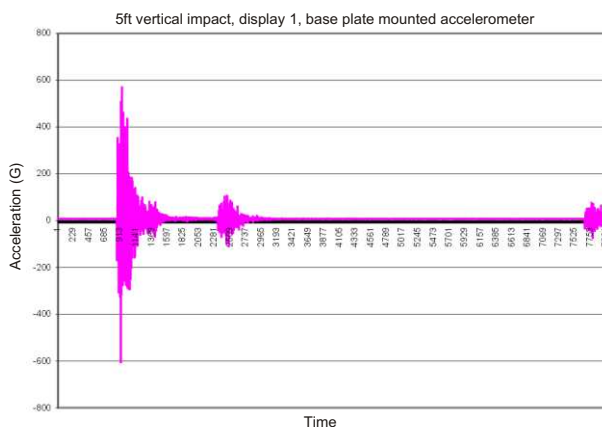

**Project: Litton Marine - Impact Test of Display**

Litton Marine are the manufacturers of rugged control and display systems for use in some of the toughest environments. They contacted Strainstall to provide a system which would confirm that one of their pedestal mounted displays could withstand high impacts during controlled shock testing. Prototype shock testing of this nature is specified to be representative of the displays most extreme operating conditions.



Strainstall supplied triaxial accelerometers with a range of 250g and a high speed data logger, capable of capturing data at speeds of up to 25KHz per channel.

Our engineer attended during the live tests to monitor and report the results. A 500lb weight was used for the impact tests, released from 1ft, 3ft and 5ft in 3 axis. The results showed applied impacts of 129g at 5.8KHz at the pedestals base and 3.2g at 1KHz at the pedestal display. No damage was sustained by the displays throughout the testing.



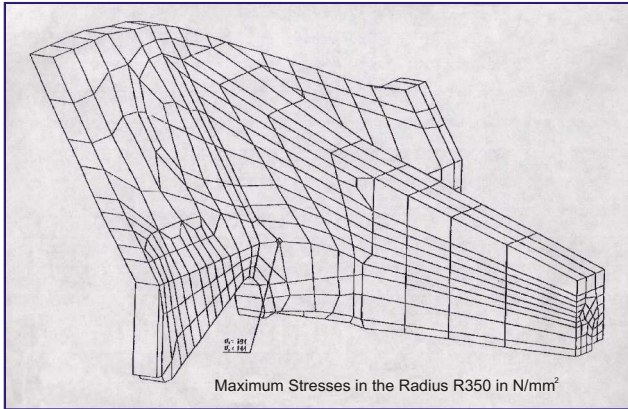
Strainstall UK have been providing support throughout all industrial markets for nearly 40 years. In addition to the design and building of load measuring systems, large or small, we provide an installation, testing and analysis service to plant operators, suppliers and designers of power plant equipment.

Clients use the services of Strainstall to investigate structural integrity / performance, duty and fatigue life of their plant.

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Project: British Aluminium Plate - Magnum Stretcher



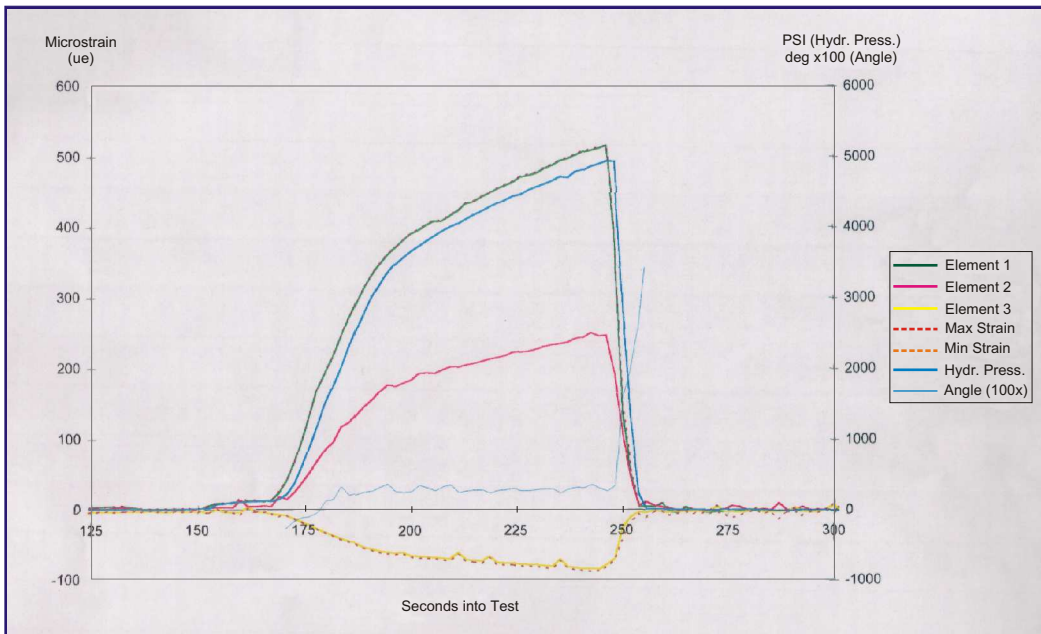
Strainstall have done various strain gauge investigations for British Aluminium, Plate at their Kitts Green Works and in particular on the 6000 Tonne Mannesmann Demag Plate Stretcher.

In this investigation the objective was to measure the maximum stress during maximum pull to verify the finite element calculations.

A number of strain gauge rosettes were installed at a location on each of the stretchers jaws where the modeling had shown stress concentrations could exist. These were monitored during loading of the stretcher and converted to maximum and minimum principle stresses.

The test results showed all stresses were within the values calculated by the finite element modeling technique.

In another test of the same machine, Strainstall were required to verify whether the indicated forces exerted by the hydraulic cylinders of the stretcher are efficiently applied to the aluminium billet in the machine grippers. A large aluminium plate was strain gauged and tested by installation of a line of equi-spaced strain gauges across the plate.



The results indicated some difference across the plate which may be due to the incorrect pressure applied to the hydraulic cylinders.

The World of Load Measurement and Stress Analysis

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