

Solutions@Mecmesin Spring design and manufacture

Specification

Longcroft Engineering design and manufacture springs, from prototypes and hand-made custom designs, to high-volume production. Their products range from the lightest flat springs and specialist clock springs, to more powerful items, so the requirement for testing across all products is very broad. Precision manufacturing is key to the Longcroft brand, who deal in a wide range of metals, and supply around the world. Testing such a wide variety with consistency and accuracy is essential, and the company had been using manual scales and callipers. A new cost-effective solution was required.



Longcroft Engineering needed a cost-effective solution for their wide variety of springs

Solution

Mecmesin supplied a range of equipment, rated from 2.5 N to 25 kN, to measure tension and load rate—the amount of force a spring is designed to bear when stretched or compressed to a certain length or height. Working to ISO 9001 quality standards, the Mecmesin Emperor™ software can now be used for individual items or to batch test, tracing each sample and operator. Programs can be written for each spring design, to condition and perform multiple force and relaxation cycles. Applied force and deformation can be displayed graphically in real time, and pass/fail criteria set for immediate colour-coded indication per sample. Full data acquisition provides for subsequent detailed offline analysis and flexible reporting. As a direct result, the level of rejects at Longcroft has decreased.

System

- MultiTest 5-xt
- MultiTest 25-xt with safety guard
- 1 kN, 5 kN,10 kN and 25 kN intelligent loadcells
- 2.5 N Advanced Force Gauge
- · Grips, plates and attachments

Testimonial

"Longcroft Engineering has a requirement to accurately measure the force on springs for a wide variety of applications. Clients frequently request new concepts and designs, and Mecmesin has been able to provide the versatility and quality we require, so that we can serve these customers."

Colin Hurst, Quality Chief Inspector, Longcroft Engineering

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engineering industry

