



Medical Case Study 01/2018

Company: Meridian Medical Ltd

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Meridian Medical Ltd  
Axiom too



Based in Littlehampton, West Sussex, Meridian Medical Limited specialise in sterile and non-sterile medical device design, development and manufacture. The company also supply high quality production tooling for customer projects.

Meridian Medical occupies over 9,000 square feet of purpose built manufacturing facilities. Impressive amenities include advanced clean room injection moulding capabilities, as well as large clean room assembly and packing operations. The company's areas of sterile device expertise include, Drug Delivery, IV Management, Paediatric and Neonatal Critical Care, Urology, Anaesthesia, Orthopaedic Device Development and General Surgical Device and Accessory Development.

Given the nature of Meridian Medical's products and the sectors it serves, the company guarantee regulatory compliance to its clients. Manufactured products are tested and inspected to ensure that only the highest quality products are released for use. To help ensure compliance, all company test equipment is calibrated and traceable to national and international standards.

Meridian Medical's QA department, which remains completely independent of the company's production and design departments, sets standard, end-to-end QA/QC procedures relating to all company activities, for instance, purchasing, production, assembly, packing and shipment.

The business's highly developed quality culture can be illustrated by the recent purchase of an advanced Axiom Too Coordinate Measuring Machine from Aberlink.

Meridian Medical Limited, Managing Director, James Fenton explained. "Meridian Medical Limited has earned an enviable reputation for our design consultancy services and for our advanced manufacturing provision. We supply high-quality cost-effective disposable medical device services together with comprehensive sterilisation services and logistics. We are registered to ISO 9001:2008, ISO 13485:2003 and FDA 21CFR 820, and quality and reliability are designed and built into every device we produce.

"Although we have a wide range of specialised test and measurement equipment, increased volumes passing through our busy QA department recently prompted us to search for a suitably accurate, universal dimensional measuring device that had both ease of use and speed of operation. Having considered other options, influenced by a very successful demonstration and by several recommendations from local Aberlink users, we decided to buy the CNC version of Aberlink's Axiom Too Coordinate Measuring Machine.

"Now fully operational, not only has our new Aberlink CMM removed the potential for hold-ups in our QA department, the machine's CNC nature and its ability to perform rapid, automated inspection routines, means that it will be able to handle all anticipated future demands.

"Our Axiom Too is now busy measuring first-off and last-off components and also undertaking work such as inspecting a given percentage of each manufactured batch, as dictated by our customers. As traceability is vital within the medical industry, it helps that our new CMM is able to generate detailed reports relating to the critical dimensions of each inspected component.

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“Given the generous size of the Axiom Too’s bed and the CMM’s fully automatic CNC capabilities, we have plans to further exploit the machine’s advanced capabilities. As the majority of the components that we measure are relatively small, we intend to invest in fixtures that will accept large batches of components that require 100% inspection. In future, having loaded a fixture with parts and recalled the relevant program, the press of a button will then start a fully automated, un-manned measuring routine. On completion of each batch, the generated inspection reports will indicate the status of each inspected component.”

The cost effective Axiom Too is the best-selling CMM from the largest UK owned Coordinate Measuring Machine manufacturer. Aberlink’s popular Axiom Too CMM is available in both manual and CNC variants in a range of capacities and is described by Aberlink as the ‘complete inspection centre’. As it boasts an aluminium bridge with a very low thermal mass the recently upgraded CMM is ideal for use in either controlled environments such as inspection departments, or within less than perfect shop-floor conditions. Thanks to the Axiom Too’s use of advanced materials, the machine’s reduced inertia also results in class leading speed of operation.

Borrowed from the laser optics industry, the CMM’s sturdy granite table consists of an advanced granite/aluminium honeycomb construction. This technology provides natural damping and further improves the machine’s thermal properties. Despite the Axiom Too’s generous X-Y-Z measuring volume (640mm x 600-900-1200-1500mm x 500mm), the machine’s compact design occupies a relatively small footprint, with the controller and all peripherals housed within the Axiom Too’s workbench.

The Axiom Too utilises Aberlink’s renowned 3D software, ensuring greater user productivity and profitability. A welcome bi-product of any Aberlink CMM inspection routine is that a simultaneous picture of the measured component is created on the computer screen. Dimensions between the measured features, mirroring those that appear on the component drawing, can then be simply picked off as required. In essence this ‘smart’ software represents an intelligent measuring system that is able to automatically recognise and define the various features being measured. Aberlink 3D is the easiest to use and most intuitive CMM software currently available.

**About Aberlink:**

Now the largest UK owned CMM manufacturer, Aberlink’s comprehensive range includes 32 standard sizes of both CNC and manual CMM variants. Aberlink CMMs enable the precise measurement of the smallest of components to parts of over 3 metres long and up to 6 tonnes in weight. Customers are able to select from a wide range of tactile probing and non-contact measurement options and on-machine fixturing. The company’s wide range of available solutions allows Aberlink to offer high quality CMMs and vision measuring systems to suit all applications and budgets.

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