



Subcontract Case Study 04/2017

Company: Sterling Precision Engineering Services

••••• Axiom too

Subcontract Case Study

Sterling Precision Engineering Services
Axiom too



Based in Kirkcaldy, Fife, Sterling Precision Engineering Services is a supplier of machined components to the Oil and Gas industry and increasingly to the Aerospace sector and to other equally demanding industries. Although Oil and Gas work still accounts for the majority of Sterling Precision's output, a policy of diversification into other industrial sectors put into place prior to the Oil and Gas industry's downturn, has insulated the company from the worse effects of the Oil and Gas sector's slump. The foresight shown by Sterling Precision's owner, John Mitchell, has ensured that an increasing amount of extremely demanding Aerospace orders, and other equally challenging work, has more than compensated for the falloff in the company's customary Oil and Gas business.

Recently, Sterling Precision's increased output of high-precision, complex Aerospace components began to place a strain on the company's inspection department. Although Sterling's quality staff had access to a wide range of precision instruments, the manual nature of the company's gauges meant that an inordinate amount of time was being taken to inspect intricate Aerospace parts that featured demanding tolerances. To overcome these difficulties a decision was made to invest in an advanced CNC Coordinate Measuring Machine (CMM) that had a high precision capability and that could automate many of the company's measuring routines.

John Mitchell explained "To ensure that our policy of broadening the industrial sectors that we serve succeeded, we have invested in machine tools that are appropriate to our new, expanded customer base. Not only has this strategy ensured that we have been protected from the moderate downturn we have experienced in Oil and Gas related orders, due to branching out in to other areas we have actually grown our business in the past couple of years. As we are now manufacturing larger volumes of complex, high-precision parts, to help our inspection function keep pace with production we recently investigated the available medium capacity CNC CMMs. After comparing several makes and models, we decided that the CNC version of [Aberlink's Axiom too](#) was perfect for our needs.

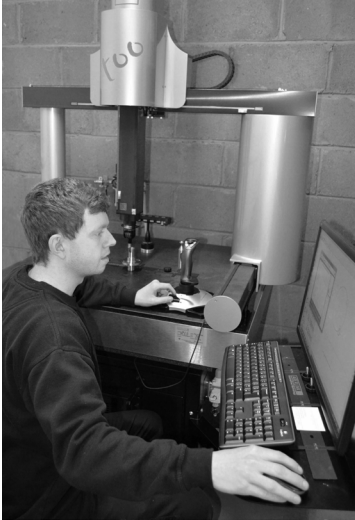
"As our production volumes of high tolerances components are increasing, the high precision specification of the Axiom too, and its ability to rapidly inspect multiple parts in a fully automatic CNC mode, were major factors in our choice.

"Following a short Aberlink training course, due largely to the Axiom too's ease of use, our operators soon became competent in our new CMMs operation. Now, we are able to quickly measure and to verify the adherence to specification of first-offs before embarking on a production run. Also, when we manufacture repeat batches, we are able to quickly recall the relevant, pre-written program, load a completed batch of multiple parts onto our Aberlink CMM, and with the press of a button activate a rapid, fully automatic inspection routine. On completion, if required, the Axiom too is then able to produce a detailed inspection report related to the status of each component in the batch.

"Having ensured that we have the manufacturing capabilities to allow the efficient production of complex Aerospace, and other such, components, the purchase of our Aberlink CNC CMM now enables our inspection department to keep pace with our increased levels of production, to measure high-accuracy parts to the required levels of precision, and when needed, to produce in-depth inspection reports and traceable documentation."

Subcontact Case Study

Sterling Precision Engineering Services
Axiom too



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 and is described by Aberlink as the 'complete inspection centre'. The recently upgraded CMM is ideal for use in either controlled environments, or within less than perfect shop-floor conditions, as it boasts an aluminium bridge with a very low thermal mass. Thanks to the Axiom too's use of advanced materials, the machine's reduced inertia results in class leading speed of operation.

Borrowed from the Aerospace industry, the CMM's sturdy component support 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 measuring volume 640x600x500 or 640x900x500, 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.

Visit us at: www.aberlink.com email: sales@aberlink.com
or call: +44 (0)1453 884461 for more information.