



Oil & Gas Case Study 10/2013

Company: Main Tool Co. Ltd

Zenith too

Oil & Gas Case Study

Main Tool Co. Ltd  
Zenith too



Established in 1954, [Main Tool Company](#) is a precision engineering business located in Bellshill, central Scotland. Throughout the company's 60 years of trading Main Tool has developed a wide variety of advanced capabilities, enabling it to serve a range of demanding industries, including the Oil and Gas and Aerospace sectors.

Having established an excellent reputation for the quality of its output, Main Tool now boasts many international corporations as its customers. To help ensure the continuity of its reputation, the company has continually re-invested in the most up-to-date manufacturing technology, resulting in the company's impressive design and manufacturing facility now being equipped with the latest CNC Machine Tools and ancillary equipment.

To facilitate full 3D programming, all of the company's CNC machines are DNC linked to 2 MasterCAM programming stations. These highly efficient facilities allow the most complex of projects to be undertaken, whilst also reducing lead times and enabling cost-effective quotations to be supplied.

Mindful of customers' trends towards shortening their supply chains, Main Tool offers a comprehensive range of turnkey solutions to a wide variety of production needs. In addition to its all-inclusive machining provision, the company's highly skilled staff and subcontract partners provide a wide variety of complementary services, including Material procurement, Welding, Surface treatment and Assembly.

Although the busy company's growing workload is able to be handled by its wide range of CNC machine tools, it was thought that the company's recent increase in production had the potential to cause hold-ups in its final inspection department. Stewart Miller, Main Tool QA Manager explained, "In addition to growing amounts of work coming from our existing customers, we have also recently won contracts from several major new customers. As it was possible that our high production volumes could have placed a strain on our existing manual and CNC Coordinate Measuring Machines, we recently investigated the available CMMs that could help maintain our high quality standards and speed-up our inspection throughput.

"Although the accuracy of the CMM we were to purchase was of paramount importance to us, given how busy we are, the proposed machine's speed of operation was also a major consideration.

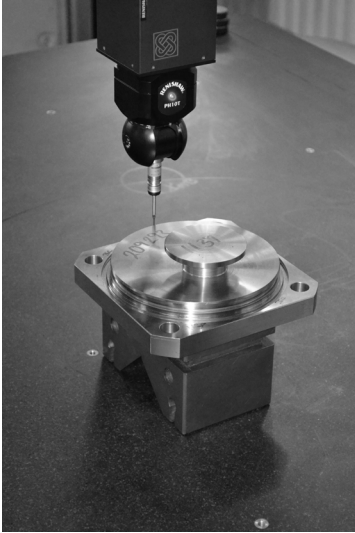
"Having had demonstrations from our existing supplier and from several other CMM manufacturers, we decided that [Aberlink's CNC Zenith too](#) was the perfect CMM for our needs.

"As we currently operate 2 CMMs from one of the world's largest manufacturers, it would have been an easy decision to remain loyal to our existing brand. Although, having compared the Aberlink offering to the latest models from our existing supplier and also to machines from other manufacturers, the CNC Zenith too was considered to be by far the best machine.

In addition to the Aberlink CMM having an excellent accuracy specification, its ease of use and impressive speed will ensure the rapid progress of parts through our inspection department. Although cost was not our major consideration when looking for a CMM, after deciding that the Aberlink machine was the best choice for our needs, when we compared prices, we were pleasantly surprised that the Zenith too was also the least expensive option.

Oil & Gas Case Study

Main Tool Co. Ltd  
Zenith too



“After an Aberlink training course and minimum practical experience of the controls, our quality personnel have quickly become skilled in our new CMM’s operation. The Zenith too’s software is very easy to use and our operators are now able to write, save and recall measurement programs. As the Zenith too has a large component support, we can measure a single large part, or numerous smaller parts in a fully automatic CNC mode. If required, after completing a measuring routine, we can also produce a variety of inspection reports.

“Our Zenith too has proven to be a great success. Since its installation, it has improved our accuracy capability and also speeded-up the throughput of work in our busy Quality Department.”

Manufactured in Gloucestershire by Aberlink Innovative Metrology, the largest UK owned Coordinate Measuring Machine manufacturer, the large capacity Zenith too range consists of 10 machines with XYZ capacities from 1000x1000x600mm –1000x3000x800mm.

The range’s cutting edge, all aluminium construction, advanced drive design and raised guide-ways ensures that despite their generous measuring envelopes, the machines’ extremely low inertia characteristics guarantees high operational speed. Impressive accuracy and repeatability figures are further aided by the Zenith too’s measuring structure being completely independent of the machine’s granite surface table. Although the Aberlink series is perfectly suited to use within environmentally controlled inspection departments, it is on the shop floor where the Zenith too range’s low thermal mass and extremely robust characteristics come to the fore, enabling the accurate measurement of large components to take place nearer to their point of manufacture.

The impressive hardware of the new Zenith too is complemented by the range’s intuitive Windows based software. A welcome bi-product of any Zenith too CMM inspection routine is that a simultaneous picture of the measured component is created in real-time on the operator’s computer screen. Dimensions between the measured features, mirroring those that appear on the component drawing, are then picked off as required. In essence Aberlink’s ‘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 CMM software currently available, so much so, that a complete novice is usually able to perform relatively involved measurement routines after just 5 minutes training.

Aberlink supply a complete Zenith too ‘turn-key’ package, including a comprehensive training programme, a wide choice of motorised or manual probes, Aberlink’s celebrated 3D software and not least the latest generation of high speed custom controllers, that are capable of generating true, three dimensional contours.

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