



Subcontract Case Study 07/2021

Company: Hi-Spec Precision Engineering

Machine Type: Extol / Axiom Too



Subcontract Case Study

Hi-Spec Precision
Extol



Recently launched by Aberlink, the Extol is a shop floor hardened CMM that not only performs rapid, accurate and repeatable inspections in the most challenging environmental conditions, but boasts an incredibly compact footprint - allowing the CMM to be positioned where it is most needed, on the shop floor.

Formed in 2004, by Darren Grainger, a highly skilled draughtsman and machinist, Hi-Spec Precision Engineering Ltd, has developed from a small start-up business to an established company specialising in bespoke machined components and assemblies. Based in Market Overton, in the heart of Rutland, Hi-Spec combines knowledge, experience and skills to ensure that its products and services are manufactured and delivered to the very highest standards.

The company incorporates modern day production technology and automation with traditional methods and practices to provide engineering solutions for today's marketplace, offering its customers a complete service from product design and prototyping through to the manufacture of one-off, small and large batch production runs.

To keep up with the demands of a growing sub-contract engineering business, significant investment has been made, Darren Grainger explains: "Any new investment in capital equipment has to be quick and easy to learn, and obviously demonstrate time saving benefits. In the last couple of years we have invested in automation in our machining cells, due to the cost savings and the continual difficulty in recruiting the right calibre of people. It's always nice to buy British, but that's not always possible. You spread your machining capability across a wide base of technology so that you can cope through times of recession and cater for current and future customer demands."

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Having owned a small manual CMM for over ten years, and more recently investing in an articulating arm, it became obvious that certain complex machined features required another level of CMM capability. The search began for a better CMM, that could demonstrate the same quick and easy-to-learn capability as the machine tool investment.

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Darren again: “Customers now expect CMM inspection reports along with their parts. Knowing the metrology limitations of what we already had, we quickly searched the internet and Aberlink was shortlisted. I attended a demonstration, expecting to buy another manual CMM with an up-to-date CMM software package, but it became obvious during the demonstration that investing in an easy-to-use, capable and affordable CNC CMM was the better option for us. The ability to create a fully dimensioned inspection program in a matter of minutes, and the ability to measure multiple parts in a single setup was a light bulb moment. In addition to being easy-to-use, British designed and made, Aberlink’s transparent pricing policy was breath of fresh air – I could check their prices on their website before I took the enquiry any further.”

Following the demonstration at Aberlink in Gloucestershire, the decision was made to buy an Axiom too 600 CNC CMM, with fully automatic indexing probe head and probe change rack. The larger measuring volume, when compared to Aberlink’s smaller shop floor Extol CNC CMM, would future proof any requirement to measure bigger parts. Four weeks later, the Axiom too was installed and the full potential of having this new CMM was quickly realised, following the comprehensive 2-day training course. Darren continues: “Within the first few days we were creating programs and loading multiple parts so that they could be measured fully automatically whilst we kept other machines running. In no time at all, we had two or three different jobs that needed to be inspected on the new CMM at the same time, so we were waiting to break down one inspection set up to quickly changeover to another - we had a bottleneck. I looked at where we needed the extra CMM capacity and remembered the shop floor CMM I’d seen during my demo – I got in contact again.”

“ Since buying the Axiom too CNC CMM, and then the Extol CMM for the shop floor, we have transformed the way we verify our part quality from our automated production cells.”

Recognising the Extol CNC CMM was the answer to put shop floor CMM measurement where it was needed, Darren ordered another machine. Within two weeks it arrived and was installed, calibrated and measuring parts within two hours of its arrival. Parts made within the automated machining cell were being measured and verified on the shop floor. Darren’s thoughts on the 2nd CMM purchase: “The Extol CNC CMM arrived and was sited and commissioned within a few hours of delivery. We quickly had it programmed and running in-process checks for one of the parts running on our VMC’s - Approximately 40 dimensions inspected automatically within a couple of minutes with no operator intervention – that’s a win to me.”

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Summing up his experience, Darren concludes: “Since buying the Axiom too CNC CMM, and then the Extol CMM for the shop floor, we have transformed the way we verify our part quality from our automated production cells. The Axiom too is used to validate batch production and provide inspection reports; the Extol verifies what’s coming off the machines within the production cell – they’re both fantastic bits of kit. The price transparency, the demonstration and the team we met in Gloucestershire left us in no doubt that Aberlink is the right choice for us. I have no hesitation in recommending Aberlink to anyone looking to buy a CMM for the first time or improving their CMM capability. We’re now thinking of buying another Extol shop floor CMM for another production cell.”

Designed and manufactured by Aberlink, the largest UK owned Coordinate Measuring Machine manufacturer, the Extol is the complete shop floor inspection system, which is provided as a turnkey solution to meet the most demanding measurement requirements.

Aberlink are proud to be the only major metrology manufacturer to supply machines with zero annual software maintenance contracts and free software updates for the life of the machine. This means that the cost of ownership is very low providing a fast return on investment.

Aberlink are now able to offer remote online demonstrations for the entire range of CMMs, measurement software and accessories to customers who are unable to travel to a regional demo facility.



About Aberlink

The largest UK owned CMM manufacturer, Aberlink’s comprehensive range includes 40 variants of both CNC and manual CMM. 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 can select from a wide range of 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.

Based in Eastcombe, Gloucestershire, Aberlink has established a global reputation for its metrology products which are innovative, easy-to-use and competitively priced.

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