



Oil & Gas Case Study 10/2019

Company: **AMB**

..... Xtreme

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Sheffield-based AMB, have been manufacturers of high-quality, precision engineered parts for over 80 years and is the result of two merging companies, Albert Marsh & Co, a renowned manufacturer of hardened wear parts and Bestelite (Hard-facing) Ltd, a leading supplier of hard-faced products.

Operating from a modern, purpose-built facility in the heart of Sheffield's engineering district, the customer focused, AMB, machine components for a wide range of industries and pride themselves on quality and after sales service.

Originally leading suppliers of steel rollers, rods, bars and liner plates, AMB's current primary output is for OEMs in the energy industry.

Through a combination of turning, milling, grinding, EDM and specialist welding techniques, rotating pump wear parts (including wear rings, inter stage bushing and balance drums) are manufactured using duplex and super duplex materials and can be supplied hard-faced using cobalt and nickel-based alloys.

These pump parts are precision engineered to customer supplied drawings and accuracy driven by stringent geometric tolerances. Accredited to ISO9001:2015, AMB's meticulous quality standards ensures that customers are supplied with only the most accurate components.

AMB's CMMs are housed in a dedicated temperature-controlled room, but to ensure absolute repeatability of parts, all work destined for CMM inspection is left in this room for a full 24hrs before inspection - ensuring thermal stabilization of parts. In addition, a dedicated manual CMM is used to take baseline measurements and used as a guide to illustrate how parts may measure once they've acclimatized. Quality at AMB is serious business.

However, due to the volume of work handled by an already overstretched quality department, and with two existing CMMs (including an Aberlink Zenith too CNC CMM) in continual use, AMB took the decision to invest in further measuring equipment to increase the flow of parts through inspection and ease the pressure on the 3 dedicated quality assurance staff.

QHS manager Chris Green explains AMB's decision to purchase an Aberlink Xtreme 500 CNC CMM: "Already familiar with Aberlink CMMs and measuring software, we were shown the Xtreme CMM at MACH 2018 and were really impressed. There was nothing else like it at the exhibition and it met all of our requirements in terms of size, performance and price."

"We had looked at other measuring options available but couldn't justify the cost. Other CMMs can be serious sums of money and then you feel stuck with the machine for life. Aberlink CMMs are so cost-effective that you're able to review a situation after 10 years and if needed, upgrade the CMM, keeping more in tune with the changes in technology."

Offering unparalleled performance and precision in all conditions, Aberlink's award-winning Xtreme CMM boasts the ability to be located wherever it is needed as the machine is not reliant on a compressed air supply – a true plug and go solution for either the shop floor or the inspection room.

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With the Xtreme CMM now installed at AMB's production facility, the company are already enjoying the benefits of this technologically advanced CMM.

Chris comments: "There is no other CMM on the market that you can basically wheel-in and wheel-out whenever needed and, because of its small footprint, it's easy to position, even with limited available space."

"The sheer speed of the CMM is equally impressive. So agile in its measurement speed, that the Xtreme took a bit of time to get used to – the CMM very rapidly performs the measurement routines of parts, even if you're just measuring a one-off. The Xtreme has substantially increased the through-flow of work, allowing inspection staff to carry out other tasks."

Having previous experience of the Aberlink 3D measurement software on their Zenith too CMM, has also enabled AMB to get the most out of the Xtreme in no time at all. Chris continues: "The Aberlink 3D software is very user-friendly and creating programs is so easy that we're now looking into retrofitting our old manual CMM with Aberlink 3D."

"With an Aberlink CMM everything just seems to be a lot easier and straight-forward. With other manufacturers, we'd have to send staff away for a week's training. With Aberlink, a day's training and you can make your own inspection programs."

Aberlink's cost-effective Xtreme CMM requires no compressed air and boasts the shortest learning curve of any equivalent system - an inexperienced operator is normally able to become competent in the Xtreme's use in just a single day, making the easy to use CMM the ideal 'plug and go' shop-floor measuring solution. In addition, the Xtreme's integral temperature control function ensures that accuracy levels are maintained even when the surrounding ambient temperature is not controlled.

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 3metres 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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