

MADE SMARTER

Precision measuring machine and digital content system helps firm thrive

A manufacturer of custom-made filler caps for all sorts of vehicles is able to make high-precision products for its customers thanks to a high-tech measuring machine funded through a Made Smarter grant.

Ceandess, based in Wolverhampton, is almost 100 years old having been founded in 1924, and supplies filler caps, necks and filters to the likes of JCB, Caterpillar and Perkins Engines as well as to private owners of classic cars and motorcycles in the UK and abroad.

The market now demands for these products to be made with a high degree of precision, and while Ceandess had been making high-quality products for decades, there was room for improvement.

Through a five-figure, match-funded grant from Made Smarter, Ceandess was able to purchase a new, high-precision measuring machine which has greatly improved the reliability of its quality control.

And after a visit from Made Smarter partner WMG - Warwick Manufacturing Group, Ceandess was initially advised on digitising their historic paper-based manufacturing and quality records for business continuity, and further guided on acquiring a portable advanced measurement system to replace their obsolete CMM to fast-track and digitise their quality control.

Ed Davies, Managing Director of Ceandess, said: "The new machine and the way our company has moved to digital processes is already paying dividends.

"We are delighted with how Made Smarter was able to guide us through the process of improving our technology and applying for a grant, and we're now in a strong

position to grow Ceandess even further."

The Challenge

While the manufacturing processes at Ceandess have been refined and improved over the years, it would occasionally come unstuck during its quality control procedures.

The parts it supplies to its clients have to conform to a high standard of precision for them to work effectively and reliably in a highly competitive market.

However, its quality control relied on measuring by hand. Although accurate most of the time, the process was vulnerable to human error and took a long time.

In addition, this was compounded by Ceandess having no way to digitally store its thousands of paper-based technical drawings, which were stored in ageing filing cabinets on the shopfloor.

For Ceandess to move forward, it needed to embrace digital technology – not only to measure its parts for its customers, but to keep track of important data and be able to access it easily when needed.

Ed added: "We've been around as a company for a long time, but times have moved on and our customers demand precision. If they don't get it, they will happily switch to rivals.

"It was clear that our quality control needed to improve, but the expense needed to acquire

an advanced measuring machine was very high. That's where Made Smarter came in."

The Solution

Ceandess was introduced to Made Smarter through Jit Gatcha, Industrial Digital Technology Specialist covering the Black Country LEP Growth Hub region.

Jit contacted Nasar Jockey, Principal Engineer at Made Smarter partner WMG, who paid a visit to Ceandess to determine what improvements could be made.

Nasar spotted the urgent need to digitise their paper-based manufacturing and quality control processes, as well as to embrace a data driven approach more widely across the company.

He recommended Ceandess to adopt a cloud-based approach to recording and storing data to save the team lots of time in searching through filing cabinets, manually recording quality data, generating hand drawing stage drawings and maintaining historic records all on paper.

Ceandess were also advised to apply for a match-funded grant of £17,500 to acquire a Keyence Image Dimension Measurement System – a state-of-the-art measuring machine which can automatically measure up to 300 features for multiple parts to micron accuracy in seconds within the press of a button.

Jit and Nasar helped Ceandess with completing the grant application, and the machine and software was purchased towards the end of 2021.

Ed said: "Made Smarter was brilliant in supporting us with our application, and once the money was in our account, we were able to reap the benefits in no time at all.

"Converting our paper files to digital actually took less time than expected. Once the laborious process of collating the files was done, we sent them off to be scanned and they were uploaded

onto the new Laserfiche system very quickly after that.

"And our Keyence machine was installed with minimal fuss too. Integrating it with our digital content system was straightforward and meant we could start using it right away."

The Benefits

After using the new Keyence machine and content management system for a few months, Ceandess is already seeing productivity improve significantly.

Parts are now measured incredibly quickly and with virtually no errors – and even if there are, errors can be quickly identified and corrected thanks to the Laserfiche system streamlining data storage.

This has meant that Ceandess is able to fulfil more orders for its clients and bring in more revenue.

Ed added: "Even though we haven't had the new machine and system for especially long, it is already making a massive difference to the way we work.

"When we finish making parts for clients, the quality control process is now so much faster. The Keyence machine gives us a measurement in no time at all, and there isn't the risk of human error producing an inaccurate result.

"It can also be reprogrammed to measure different products, which saves us time compared to having to find the correct analogue measuring tool for the various parts we may have made on one order.

"And the Laserfiche system has been fantastic – we can now access our orders, drawings and measurements much more easily, which can be crucially important when something goes wrong. It's something we at Ceandess have been crying out for.

"What's great is our team of 14 staff have taken to these new processes like ducks to water. It took very little time getting them used to the new way of working,

and since it is much easier to complete day-to-day tasks, our staff have become far more productive.

"Without Made Smarter, we simply would not have had the capital to purchase a digital measuring machine and would not have known how to go about digitalising our admin processes across the business.

"Our customers are already seeing the changes with orders fulfilled more quickly and with much higher reliability."

The Future

Ceandess is hoping to see continued success from its measuring machine and digitalised processes, and is confident it can use the extra money to invest in further hi-tech machines to improve its manufacturing even more.

And WMG will be supporting Ceandess further by connecting their legacy assets to aggregate machine performance data to make further operational improvements.

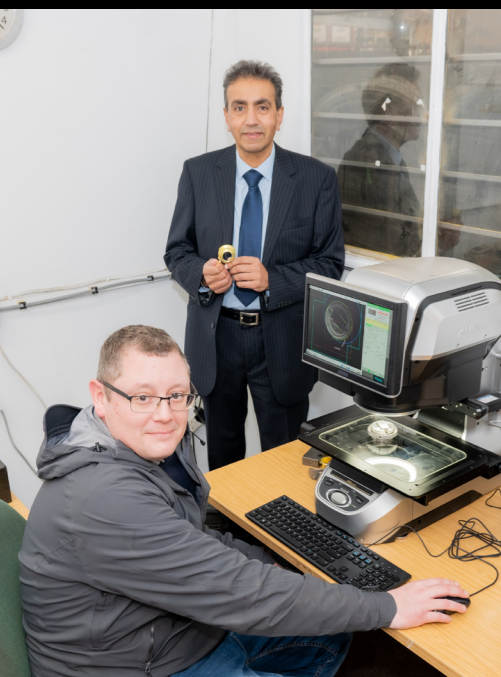
Ed is also hopeful that the extra income will allow him to expand his team and create more jobs in what is a crucial sector in the West Midlands.

"Made Smarter's advice and support has been fantastic for us," he added.

"The advice from Nasar at WMG and Jit from Made Smarter has helped futureproof our business, and I'd encourage businesses like us to get in touch with Made Smarter if they haven't already.

"Even if your business has been successful for a number of years, sometimes it takes an informed observer to come in and spot where you can make big improvements.

"That's exactly what Made Smarter has done, and we're very excited about what the future holds for our business."



Jit Gatcha (standing), Industrial Digital Technology Specialist at Made Smarter, with Ed Davies (seated) Managing Director at Ceandess who is operating the business's new Keyence precision-measuring machine.

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