

Bowers Group Bore Micrometers including the XT Hometric bore gauge, Sylvac Hi-Cal 450 Height Gauge



BOWERS GROUP

Case Study - April 2018



Company Name M-CNC Precision Engineering
Location Bridgwater, Somerset, UK
Industry CNC turning and milling of high end precision components

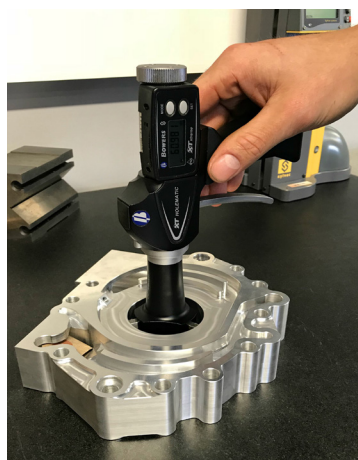
Product Supplied Bowers Group Bore Micrometers including the XT Hometric bore gauge, Sylvac Hi-Cal 450 Height Gauge

APPLICATION BACKGROUND

M-CNC Ltd is a sub-contract multi-axis CNC machining company based in Bridgwater, Somerset. The team at M-CNC delivers sub-contracted manufacturing of high end precision components throughout the UK, providing CNC turning and milling services to clients across the aerospace, motorsport, nuclear, medical and agricultural industries. The company currently employs 17 people with four apprentices, and is actively seeking more skilled engineers to work in its state of the art facility.

A rigorous commitment to the Engineering industry means that M-CNC continually upgrades its technology to the latest specifications and builds lasting relationships with providers.

Fully embracing industry 4.0, M-CNC is always looking to increase its productivity and efficiency, and has recently invested £2.75 million in 8 new DMG Mori CNC Machine Tools, 4 Mills and 4 lathes, all multi-axis, some with palletised automation and a robot cell to produce larger volumes unmanned.

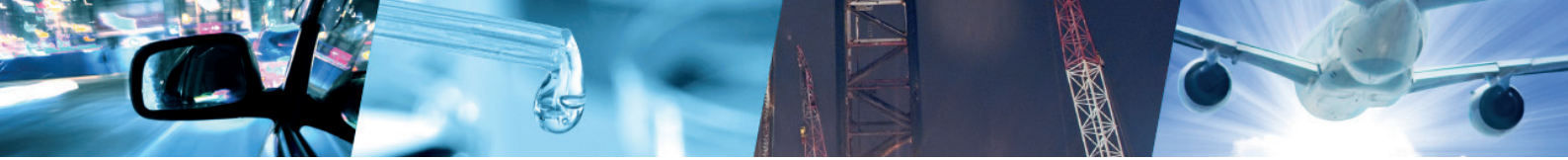


M-CNC place high emphasis on customer service, offering consultancy, impartial advice on in-house resources and implementing new manufacturing using the latest technology and machinery to make them more efficient, productive and responsive to the demands and needs of the supply chain within the engineering market.

CHALLENGE

Ongoing customer demand for an increasing amount of high quality components meant that M-CNC needed to increase not only its capacity, but also its capability, allowing the business to produce more complex parts with minimal intervention.

M-CNC work closely with a range of innovative companies, including Mako Boardsports, manufacturing large numbers of engine components for their revolutionary Jet Powered Surf Boards. Another high profile customer includes Riders Racing of Riders Motorcycles, who M-CNC has worked with for over 10 years. M-CNC developed a bespoke quick release fuel cap designed to speed up re-fuelling times for bikes at the 2016 Isle of Man TT tournament. For the 2017 Isle of Man TT, M-CNC used its extensive engineering knowledge to manufacture bespoke parts for three new bikes, all of which were ridden during the iconic races. The manufactured parts were used on three Riders superbikes; a Triumph, a BMW and a Kawasaki, all of which were ridden by Yeovil-based superbike racer Martin Jessop.



M-CNC also works with Rotron Power Ltd to produce centre plates for Rotron's advanced rotary engines for Unmanned Aerial Vehicle (UAV) applications. As specialist manufacturers of advanced rotary engines, this a company at the very forefront of aviation technology, manufacturing engines for anything from jets to target drone engines.

SOLUTION

With clients of such high calibre, producing components of high quality and accuracy is key. Reliable, quality measurement equipment is, therefore, absolutely imperative. M-CNC estimates that the business carries out over 5000 bore measurements per week, measuring a wide variety of components for a range of applications. Regular measurement of components containing lots of bores means that M-CNC required high-quality measuring equipment to ensure that the measurements are accurate first time, from a measurement range of 10.000mm to 250.000mm.

As world leader in bore gauge manufacture, Bowers Group has provided M-CNC with a range of bore gauges to ensure the accuracy of components. Bowers' XT3 Hometric XT3 Digital Pistol Grip Bore Gauge with Bluetooth is used regularly at M-CNC. With built-in Bluetooth allowing bi-directional communication with machine tools, the XT3 gives flexibility for data acquisition and storage, further contributing to M-CNC's commitment to embracing Industry 4.0 and increasing its productivity and efficiency.

In addition to a large number of bore gauges from the Bowers Group's range, M-CNC also uses a Sylvac Hi-Cal 450 Height Gauge. As Sylvac's sole UK agent, Bowers Group supplied M-CNC with this digital, motorised height gauge used for a variety of measuring tasks including step heights, internal/external diameters and centre-line distances. This height gauge benefits from Sylvac's patented inductive measuring electronics and the latest motorised probing system, to give excellent repeatability and ease of use.

COMMENT

Leigh Howarth, Business Development Manager at M-CNC says: "We find Bowers Group's products very reliable as well as accurate. The internal bore mics are easy to use, accurate, and the adjustable fit is very useful. The guys on the shop floor love them; they are so precise and straightforward.

Our aim is to achieve zero defects by engaging the workforce in the complete manufacturing cycle. We are already very close to that target and our mantra is to 'be the best we can be at all times'. Our quality and inspection is, therefore, a large part of our ability to deliver excellence to our customers."

