

# Renishaw enters the CMM retrofit market with a ‘one stop shop’ solution

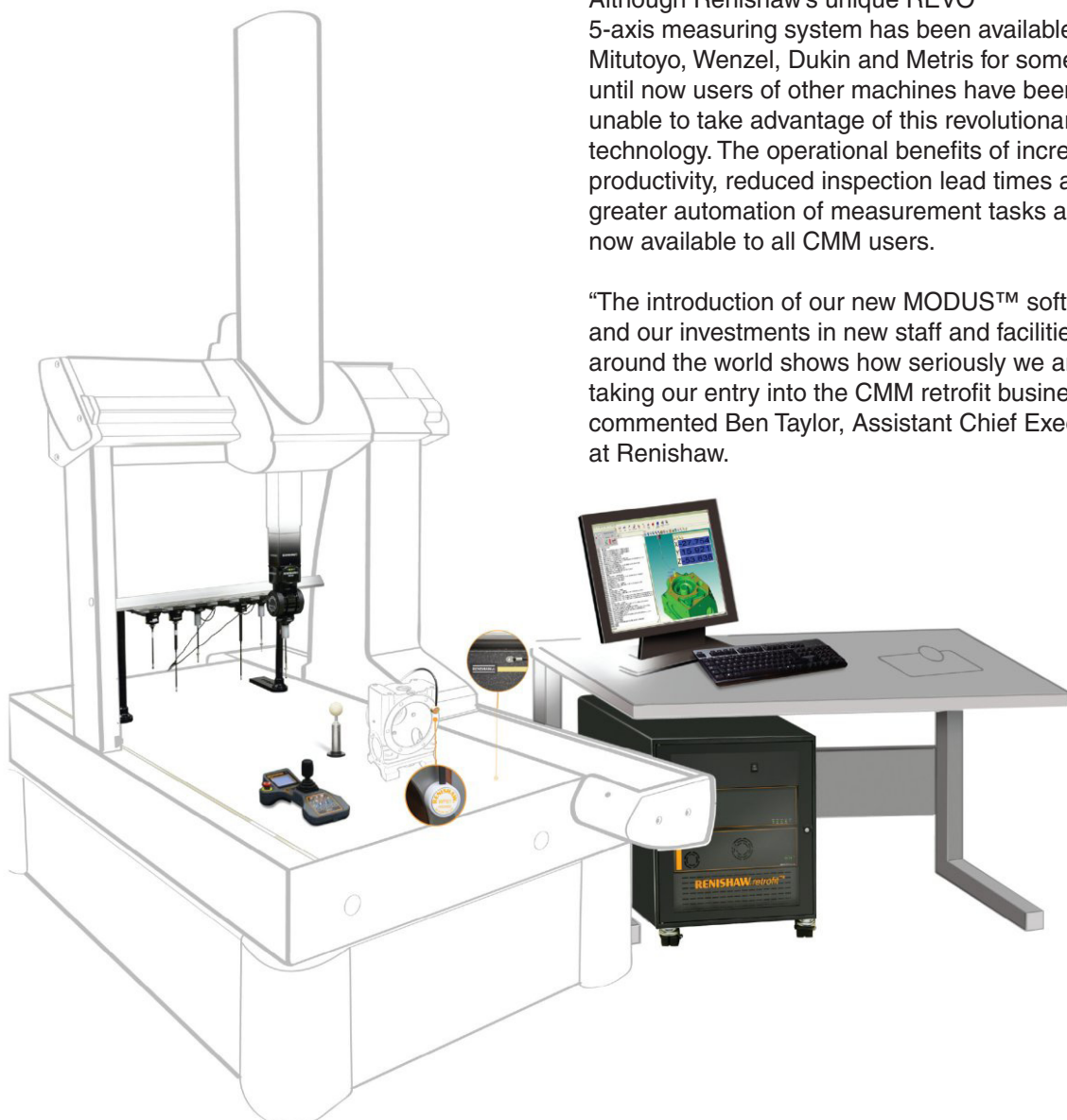
**Renishaw assembles the technology and resources to offer CMM users a complete upgrade service, providing a cost-effective and low risk transition to its revolutionary REVO™ 5-axis measurement technology.**

Users of all brands of CMM now have the opportunity to transform their measurement performance with an upgrade to Renishaw's innovative metrology systems.

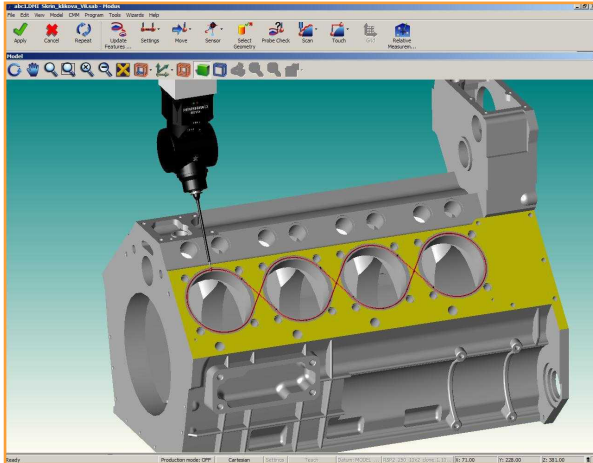
The company can now provide a comprehensive CMM retrofit offering, based around the UCC2 universal CMM controller and its new MODUS™ CMM metrology software. Combined with its unrivalled range of touch-trigger, scanning and 5-axis sensors, as well as recent investments in UKAS-accredited staff and facilities, Renishaw has assembled all the elements to develop a strong CMM retrofit business.

Although Renishaw's unique REVO™ 5-axis measuring system has been available via Mitutoyo, Wenzel, Dukin and Metris for some time, until now users of other machines have been unable to take advantage of this revolutionary technology. The operational benefits of increased productivity, reduced inspection lead times and greater automation of measurement tasks are now available to all CMM users.

“The introduction of our new MODUS™ software and our investments in new staff and facilities around the world shows how seriously we are taking our entry into the CMM retrofit business,” commented Ben Taylor, Assistant Chief Executive at Renishaw.



Elements of a CMM retrofit - probe, head, rack, encoders, controller and software



CAD model of engine block in MODUS™ software, showing REVO™ performing a gasket scan

He continued, “We can now offer customers of all brands of CMM – including Hexagon and Zeiss – a complete solution that features leading-edge technology in every aspect, backed up by the security of service and support direct from Renishaw. What’s more, our retrofit customers will benefit from immediate access to our future innovations in measurement technology.”

### A professional approach minimises risk

“Renishaw believes that CMM retrofit customers have the right to expect the same level of professionalism and quality from a CMM upgrade as they get when they buy a new CMM,” declared Brian Gow, Marketing Manager for Renishaw’s CMM Products Division. He continued, “We have put in place a rigorous machine survey to assess the mechanical and electrical components of each CMM, and we commit to a level of system performance so the customer knows what he is going to get before we start. With hundreds of UCC retrofits behind us, we have built up a comprehensive knowledge base of CMM installations, so we can provide a ‘plug and play’ installation of our controller. Finally, our UKAS certification gives customers confidence in the accuracy of their upgraded machine. It’s all about managing the details to provide the level of service that Renishaw customers have come to expect.”

### Responsive service and support

Renishaw recognises that CMM users will require high levels of machine uptime and so responsive service and knowledgeable support are both vital. Renishaw offers retrofit customers a flexible range of maintenance contract options, including software maintenance; calibration, preventative maintenance and emergency support visits; out-of-hours support and top-up software training. Each contract is bespoke, enabling the customer to select the combination of services that suits their needs, with the flexibility to carry over unused days to the next period.

A range of online resources is also available via [renishaw.com](http://renishaw.com), including Google-searchable help topics, frequently asked questions and answers, a discussion forum, software updates, plus the facility to log help requests.

### Investments in staff and facilities

To meet the installation and support needs of its CMM retrofit customers, Renishaw has been investing in new staff and facilities. This includes the recent acquisition of Qualis Service GmbH, a CMM service firm with field service engineers located throughout Germany. Sales and applications staff have also been recruited in the USA and throughout Europe. Renishaw has also established a manufacturing cell in its facility at Woodchester, Gloucestershire, UK, that is dedicated to the assembly and testing of retrofit kits. This approach to retrofitting minimises the amount of time on site as the system is pre-tested and ‘plug and play’ by the time it reaches the customer. This facility is being replicated in major Renishaw subsidiary facilities around the world.

### The elements of success

Renishaw can now offer state-of-the-art technology in all aspects of a CMM retrofit, including sensors, controller and metrology software.



Ultra-fast REVO 5-axis system a complex blisk

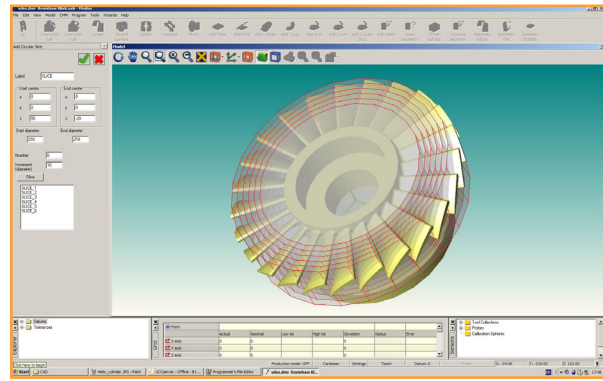
The award-winning REVO™ 5-axis measuring system offers unprecedented measurement speeds, reduced calibration time, and flexible access to features unmatched by indexing or fixed probing systems. Packed with innovative technology, REVO™ allows CMM users to measure feature form whilst also increasing measurement throughput and reducing operator intervention. With programmable stylus and sensor changing, REVO™ users can automate even the most complex measurement task.

Furthermore future REVO™ sensors, the first of which will enable surface finish measurement on a CMM (available later in 2009), will allow existing quality assurance tasks that are manually intensive to be integrated into a CNC inspection process for the first time.

In addition to REVO™, retrofit customers can also select from Renishaw's extensive range of touch-trigger and scanning sensors, mounted to the industry-standard PH10 indexing head. With automation features such as stylus and sensor changing, these provide powerful capabilities suitable for many measurement applications. With a common controller and software platform, customers who choose these sensors have a cost-effective route to upgrade to 5-axis measurement as their needs change.

Renishaw's UCC2 universal CMM controller is at the heart of the Renishaw CMM retrofit. Combined with a Renishaw servo power amplifier, it enables precision control of up to five axes of simultaneous motion on machines of all sizes. It also provides a single-box interface to all Renishaw sensors and can gather surface data at up to 4,000 points per second. Sophisticated machine error mapping is provided in an open format, allowing users to perform their own recalibration, whilst temperature compensation is also available. Crucially, the UCC2 also complies with the I++ DME standard, giving users the freedom to use any metrology software that features an I++ client.

One such software is Renishaw's new MODUS™ package. With full support for its entire range of sensors, including the award-winning REVO™, MODUS™ provides a powerful platform for 5-axis measurement. Key features include CAD-driven offline programming with full simulation and collision detection of 5-axis moves; native DMIS support; certified mathematical algorithms; powerful text and graphical reporting; and flexible output of results data. Based on the highly-regarded Metris Camio metrology software, MODUS™ has been developed by a newly-recruited team of engineers and will be enhanced to support all future innovations in Renishaw's controller and sensor technologies.



Blick CAD model showing inspection scan path

[www.renishaw.com/cmmretrofit](http://www.renishaw.com/cmmretrofit)