

Apply innovation to your business: manufacturing

Whether you are a large aerospace or automotive business or a specialised job shop, the challenges facing you are many and varied. To remain competitive, companies are adopting a range of techniques to accelerate and automate production, whilst maintaining tight control of the dimensions and finish of their manufactured components.

Join progressive companies in using Renishaw's products to control your processes, improve the quality of your products and raise your productivity.



Fast and automatic process changeover for lean manufacturing



Unmanned machining for extended periods



Process control where you need it - on the machine tool



Rapid and accurate measurement of form and dimensions



Improved part accuracy through machine calibration



Precision motion control for greater accuracy and better surface finish



Confidence in machine performance

A comprehensive approach

Renishaw provides a unique range of proven solutions to support these goals. We help you to increase throughput, minimise downtime and eliminate scrap, enabling you to take control of your machines and streamline your production processes



Picture courtesy of Böllinger Messtechnik

Renishaw offers a growing range of solutions for the electronics, microelectronics, semiconductor, data storage and computing industries. Each delivers precision, performance and productivity.



Position feedback to nanometer resolution



Encoders that are famously easy to install and set up



Defect detection at the molecular level



Confidence in an accurate and repeatable process

Apply innovation to your business: electronics

Renishaw provides precision metrology along the complete process line, with probing, position feedback and performance measurement solutions designed for printed circuit board production.



Process set-up

- Tool setting on PCB drillers



Precision motion control

- Linear and planar encoders for accurate control of automated production equipment



Post-process control

- Optical and contact inspection



Performance measurement

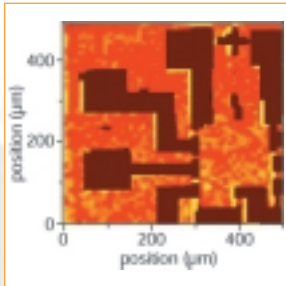
- Laser calibration of production equipment

Microelectronics and semiconductor

In the rapidly developing world of chip production, accuracy, responsiveness and reliability are critical. Renishaw provides nanometer-resolution solutions for this most precise of industries.



Fibre optic laser scales provide the extreme resolution needed for modern semiconductor production, yet with simple installation and set-up.



Raman spectroscopy is an invaluable tool in the semicon research lab and in the wafer lab, where it can be used to detect defects in the process line.

With a comprehensive array of encoder solutions based around an innovative open optical scheme, Renishaw is your ideal partner for position feedback.

Apply innovation to your business: motion systems



Wherever there is a need for position feedback, calibration is required to provide traceable accuracy.

Renishaw encoders are applied everywhere in industrial motion control, all featuring simple installation and rapid set-up.



Applied everywhere - linear, planar and rotary motion control applications



Solutions for linear, planar and rotary motion control

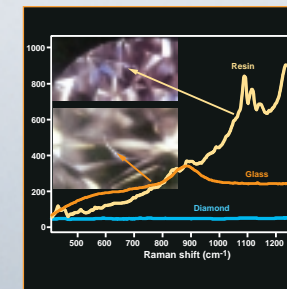


Wherever you apply position feedback, you need calibration for traceable accuracy



Renishaw's uniquely flexible Raman spectroscopy systems provide the ideal non-destructive research tools for scientists in many fields.

Research, medicine and law enforcement



Raman is used to highlight flaws and modifications to gemstones and can detect the source of the gems – a vital weapon against fraud.

Biomedical scientists use Raman's non-invasive technology to image live cells without damaging them. There are many applications including ophthalmology, early detection of cancer and analysis of blood analytes.

Renishaw forensic analysers help the forces of law and order to detect common narcotics and traces of explosives, whilst similar techniques are used to highlight forged documents.



Non-destructive identification and analysis of materials with almost unlimited applications.



Forensic analysis of drugs, explosives, fibres and inks.



Non-invasive IN VITRO and IN VIVO analysis of live cells.

The Renishaw Group



The world-leader in automated technology for manufacturing and research

Renishaw supplies solutions for co-ordinate measuring machines (CMMs), CNC machine tools and manufacturing automation systems in the electronics and semi-conductor industries. Our products include an extensive range of probing, calibration, encoder, scanning and spectroscopy systems.

A history of applying innovation

Renishaw was founded on an innovation - the touch-trigger probe - and has remained true to this pioneering spirit ever since.

Investing for growth

A simple philosophy emerged in our early years and remains at the heart of Renishaw's business strategy:

- innovate in product design to deliver patented, breakthrough solutions
- innovate in manufacturing to ensure cost-effective, high quality production
- differentiate through superior customer support and service
- grow the business organically through new products and extending our market reach

Renishaw has grown into a truly global business with customers in a wide range of industries and research fields. We invest approximately 15% of our turnover each year in research, development and engineering to drive constant innovation.

With staff around the world, Renishaw offers pre-sales advice, expert service and responsive support, wherever our customers are located.

Founded on innovation.

Growth through sustained investment in research and manufacturing.

Global network of companies, providing customer support wherever it is needed.



Apply innovation now!

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Think carefully.

Is there anything you can do to improve your productivity?

Does standing still mean you are losing the race?

So, should you be distancing yourself from your competitors?

Should you be innovating?

If the answer to any of these questions is 'yes', just relax.

It has never been easier to find innovative solutions to your manufacturing problems.

Our solutions will help to keep you ahead.

So apply innovation to your business: contact your local Renishaw office - the details are on the back of this brochure.

Or, for a deeper look at Renishaw's products visit: **renishaw.com**.

You'll not regret it!

