

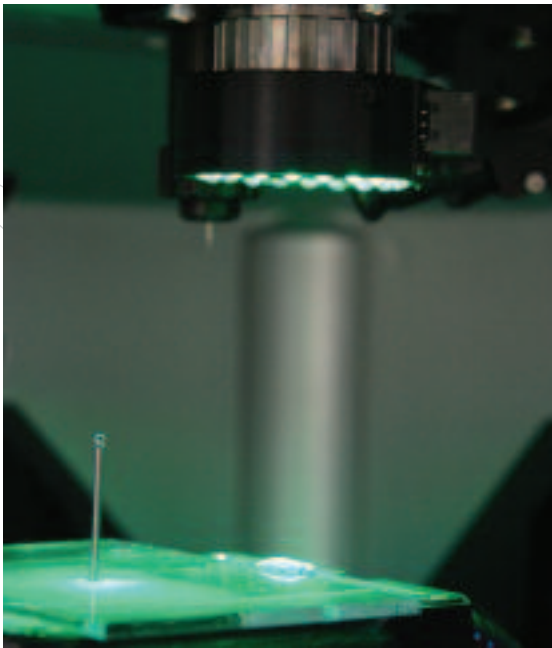
PRECISION ASSEMBLY

Introduction

Our high precision capabilities enable us to work on complex products at the smallest scale. We can help you to find innovative techniques for the manufacture, assembly and verification of micro products or components.

We offer access to the latest high precision technologies, enabling you to develop, prototype and manufacture products more efficiently. We use equipment such as Kern Evo, Battenfeld Microsystem 50, EnvisionTec Perfactory, Klocke Nanotechnik, Feintool Modutec, Sony SMART Cell, Zeiss F25, Hitachi S2600N, Zeiss Stemi-2000 and the Vishy Model P3 Strain Indicator (for residual stress measurements).

Our precision assembly facilities are based at the University of Nottingham, benefiting from the know-how of researchers and engineers in the School of Mechanical, Materials and Manufacturing Engineering. Our cutting-edge technologies and pioneering expertise offer you an experienced resource for precision assembly innovation.



Product Development

We can help you to optimise the design and manufacturability of your micro products, improving cost and time efficiencies during assembly. We conduct product design and performance analysis to identify areas that would benefit from development. These areas can then be targeted to develop valuable, cost-effective improvements. This might involve re-designing for cost-effective manufacturing, reducing the number of complex features or implementing sub-assemblies, all without compromising product performance.

Precision Manufacturing and Assembly

We can develop your current manufacturing processes to improve tolerances, resulting in enhanced product performance.

If you are considering new product lines or diversification, we can assess the feasibility of manufacturing new products or components. Through our consultancy services we can also help you to develop new production lines, using proven technologies to deliver improved process flexibility.

We have a number of in-house systems to demonstrate the advances in re-configurable production systems. Our demonstration facilities allow you to see how they can be adapted to meet ever-changing product or market requirements.

To ensure that new manufacturing processes will provide value, we have the facilities to produce small batch prototypes, offering cost-effective assurance prior to implementation and capital outlay.

Ultra-Precision Metrology

We offer contract measurement services through our suite of ultra-precision measurement systems. We can ensure stable conditions are achieved during the measurement process using our ISO level 6 clean room facility with temperature control.

Systems Development

We can undertake projects that require the development and implementation of one-off systems for specialised applications, particularly those that are of higher risk or those that have not demonstrated sufficient market size for commercial companies to undertake.

Prior to implementation, we can develop and test prototype systems to ensure that they deliver the required process capabilities. We can also conduct capability assessments of these systems and assess operational costs based on your current business model.

Training

We offer training on the use of specific machines as well as manufacturing process-specific know-how. We also run awareness courses on ultra-precision manufacturing technologies and their implications. Contact us to discuss your needs or find out about our latest training opportunities.

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