



**Understanding** the true  
meaning of **precision**



# A Global Reputation

**When guaranteed precision is your ultimate goal, choosing the right partner is essential.**

IBS Precision Engineering works with renowned companies and research institutes across the globe; providing ultra precision measurement and engineering solutions.

From complex carbon-fibre jet engine components to semiconductor chips accurate to tens of atoms; IBS has provided key enabling technologies.

**Just think what we could achieve for you.**



Isara (400)

IBS  
Precision Engineering



# Products

**IBS Precision Engineering products are built on its unique expertise in metrology. Customers trust IBS to deliver; particularly when their projects involve precise measurements, motion control or applications demanding the ultimate in accuracy.**

**IBS offers technically superior solutions...  
...even beyond nanometer resolution.**

## **ISARA 400 ULTRA-PRECISION CMM**

The ISARA 400 is an ultra-precision coordinate measuring machine with an unprecedented ratio of measurement volume to measurement accuracy.

Designed to overcome the limitations presented by current optical methods or contacting profilers, the ISARA 400 is the most accurate three-dimensional coordinate measuring machine on the market.

## **CAPACITIVE AND INDUCTIVE SYSTEMS**

From servo controls for scanning electron microscopes to production quality controls for the latest disk drives, IBS non-contact measuring systems provide both outstanding measurement resolution and high dynamic response.

For clean environments, IBS state-of-the-art capacitive systems offer resolutions to picometer level at high bandwidths.

For harsh environments, IBS inductive systems offer a rugged, economical solution for nanometer resolution. In partnership with leading system developer, Lion Precision, IBS offers both standard and bespoke systems for the most challenging OEM or research applications.



# Products

## OPTICAL METROLOGY

For on-line or in-process surface metrology at the micro and nanoscale, IBS Precision Engineering wavelength scanning interferometer systems uniquely combine high speed, large vertical range, nanometer resolution and millimetre area sampling. Unlike many other interferometric techniques, large steps and structured surfaces can be measured. Challenging environments, such as in-line roll-to-roll are also possible.

As European distributor for KeySight high quality systems, IBS also offers a variety of industry-leading solutions ideal for:

- Laser-based dynamic calibration
- Parts inspection & measurement
- Semiconductor fabrication, inspection & repair

## MACHINE TOOL SOLUTIONS

IBS has pioneered technology making a step change in both speed and measurement capability for the quality control of machine tool geometrical accuracy. Leading manufacturers, from aviation to the medical market, have adopted this as their standard, for up to 5-axis.

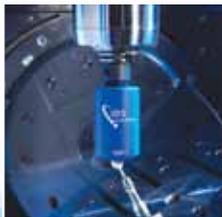
For production monitoring, machine-integrated, workshop-robust **INSPECTOR** systems provide the true positioning accuracy of the tool relative to the workpiece, under both static and dynamic conditions.

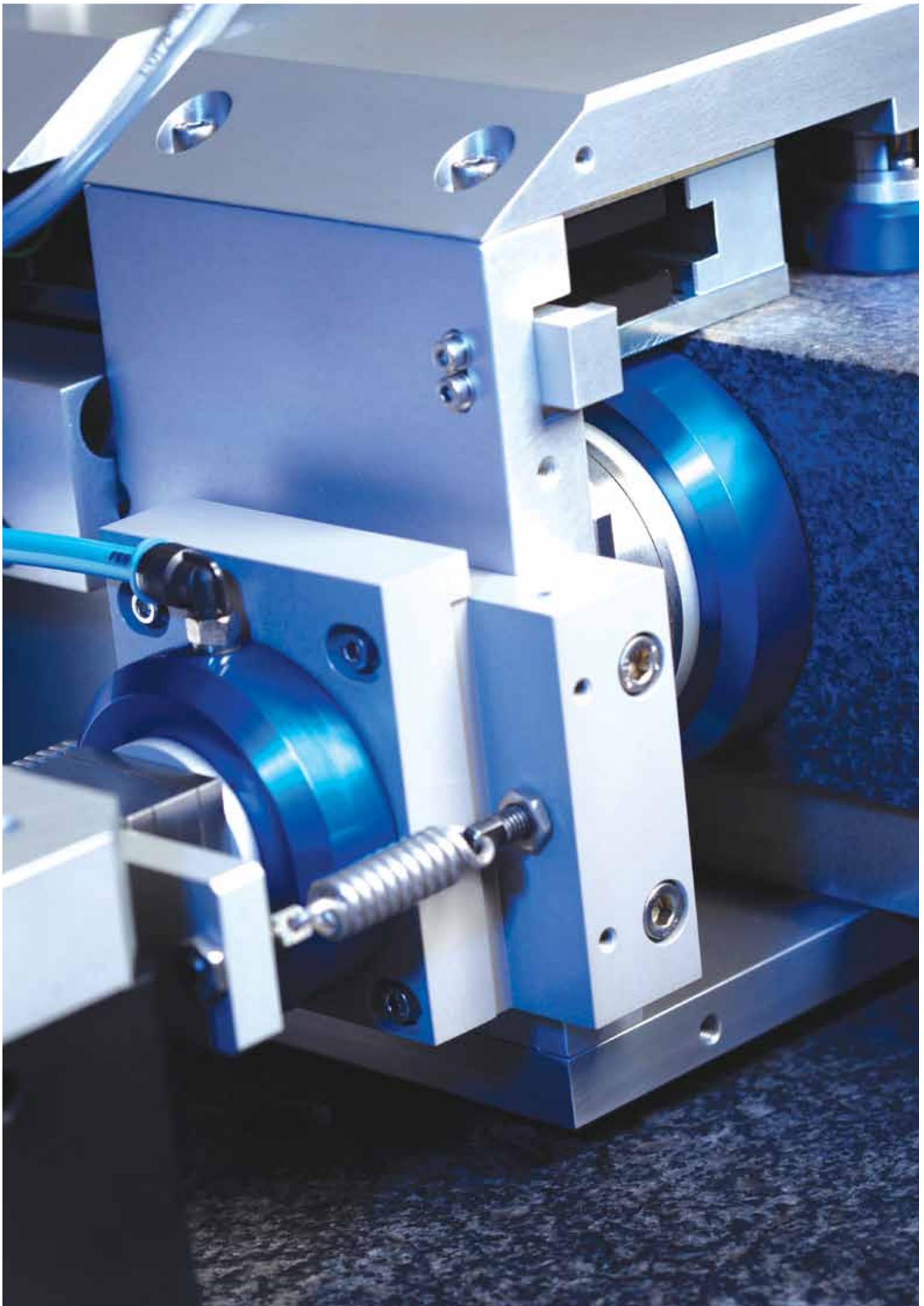
For advanced users, **ANALYZER** systems provide unparalleled diagnostic capability and speed. Machine acceptance, qualification, and compensation are possible to ISO standards.

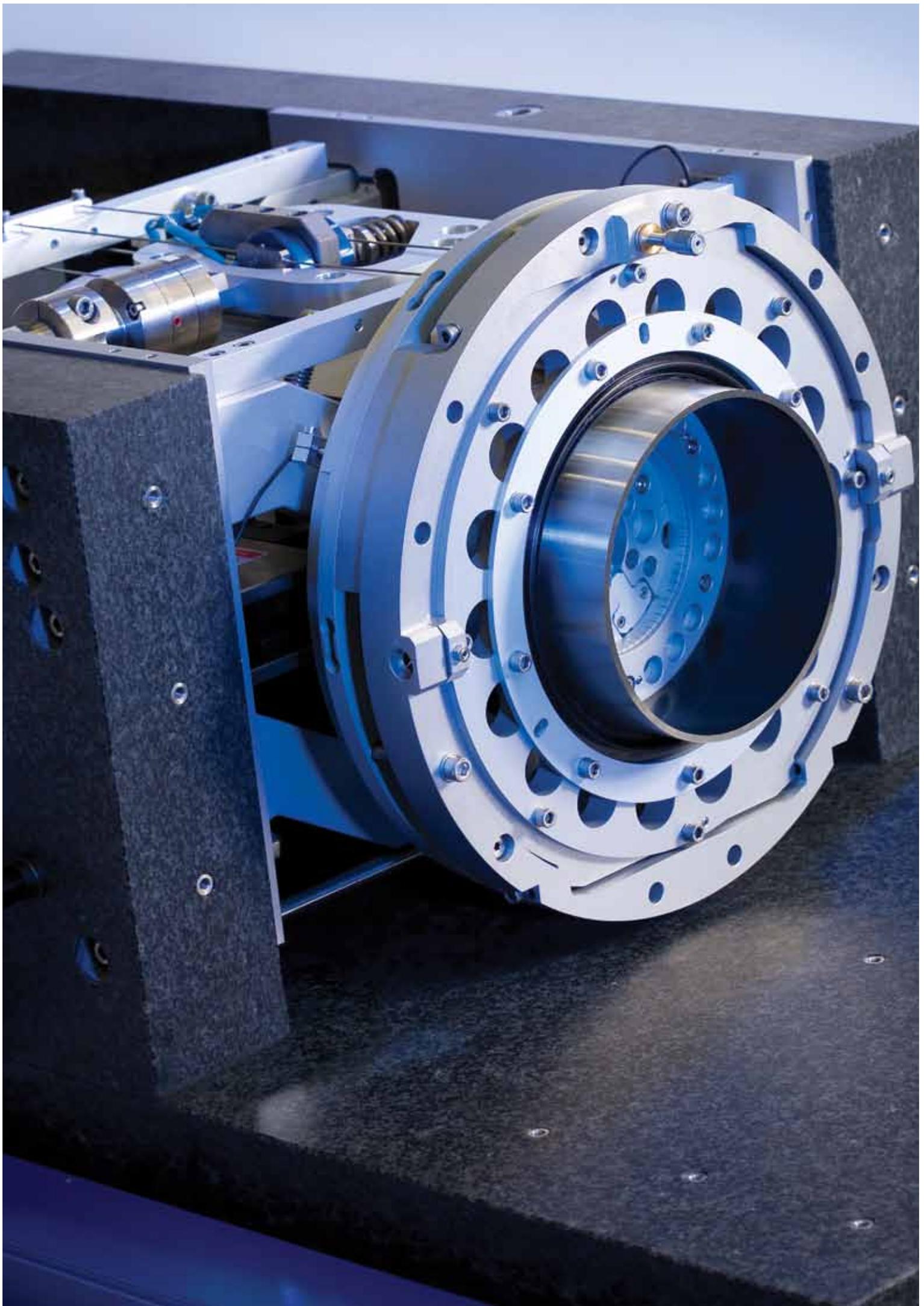
## AIR BEARINGS

Porous media air bearings are increasingly applied in ultra-precision production and research systems due to their almost stictionless motion, infinite resolution, matchless repeatability and crash resistance.

From enhancing image resolution in computed tomography to tight, fly-height control in flat-panel display processing and roll-to-roll applications, IBS provides the latest technology and unique application expertise.







# Engineering Solutions

**IBS Precision Engineering has over 20 years' experience in the design, prototyping, testing and manufacturing of ultra-precision modules and machines.**

As a strategic partner to the world's best manufacturing equipment and instrument suppliers, we have a distinguished track record.

Where proven and robust precision solutions are critical, IBS provides truly distinctive quality results.

## FOR OEMS

- Custom-built measurement machines
- Ultra-precision modules - from design to pilot manufacture
- Tailor-made tools & test rigs

IBS has established itself as a key partner to leading OEMs. Powered by our metrology expertise, we design and deliver to proven precision.

Where transition to a volume supplier is required, IBS recognises that a smooth handover is critical. IBS works with your volume supplier during the important first stage to ensure critical know-how and capability is embedded.

## FOR RESEARCH INSTITUTES

- Scientific measurement equipment

IBS is fully aware that your ideas and challenges lie at the cutting edge, and can help you realise these through its world-beating design and measurement capability.



# Markets and Customers

**IBS Precision Engineering delivers technically advanced solutions to major companies and research institutes around the world. IBS technology enables the manufacture of leading-edge products and instruments requiring ultra-precision measurement, motion control and the ultimate in geometrical accuracy.**

## **DELIVERING PRECISION**

IBS has a mission to put the power to deliver precision into their customers' hands, with a goal of bringing about a step change in their capability.

IBS serves equipment suppliers and production companies in the following markets:

- Semicon
- Aerospace
- Medical
- Automotive

IBS also serves the following scientific markets:

- Large scientific facilities
- Research institutes
- Metrology institutes
- Universities







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