

World class manufacturing award

Calling for entries: Is your company making quantified, sustained progress towards being world class?

This award will go to the manufacturing company or plant that, in the opinion of the judges, best demonstrates that it is trying to achieve world class manufacturing standards – generally understood as scoring a minimum score (from 95%-98%) on an absolute true measure of efficiency. Judges will look for evidence of benchmarking against best practice and will examine measures like lead times, customer returns, work content, labour minutes per unit, inventory levels and cycle times, checking that action has been taken to improve these.

THE Manufacturer OF THE YEAR AWARDS 2009

WE all know it is a tough time for manufacturing. Whether household names or small firms, companies across the UK are feeling the pinch. In these circumstances there are two ways to maintain a profitable business — either increase sales or reduce costs and wastage. The former is becoming increasingly difficult, so ways to make manufacturing leaner and more efficient are becoming ever more important.

That is why appropriate staff training is now more crucial than ever, particularly the right training from the right people. Training that sees a return on investment and affects the bottom line.

Since launching in 2006, over 120 companies and 600 delegates have gone through level 1 and level 2 of our dimensional measurement training framework, with more signing up every day. Customers include BAE Systems, Rolls-Royce, Airbus, GKN, AWE and Bentley as well as small and medium sized businesses.

These manufacturers are seeing that dimensional measurement training has a real effect on their efficiency and productivity. We take a generation of workers and reintroduce the questioning and planning culture into their daily routine. For example, machines that measure co-ordinates are a wonderful thing but are they always the best way of measuring a particular part or component? What are you actually measuring, under which conditions? People who have undertaken our dimensional measurement programme have started to ask questions like these.

The problem is that some workers know less about the principles of measurement today because advances in technology mean they don't have to know them. New equipment has become easier to use so operators do not need the depth of measurement training they did twenty years ago. This can lead to poor decisions and mistakes with expensive consequences. The result is fewer companies with appropriate measurement expertise and the slow decline of industry's measurement competency. It is the National Physical Laboratory (NPL)'s responsibility to address this key issue.

The training framework

Our dimensional measurement training addresses this issue head-on. We base our programme on a framework of four levels.

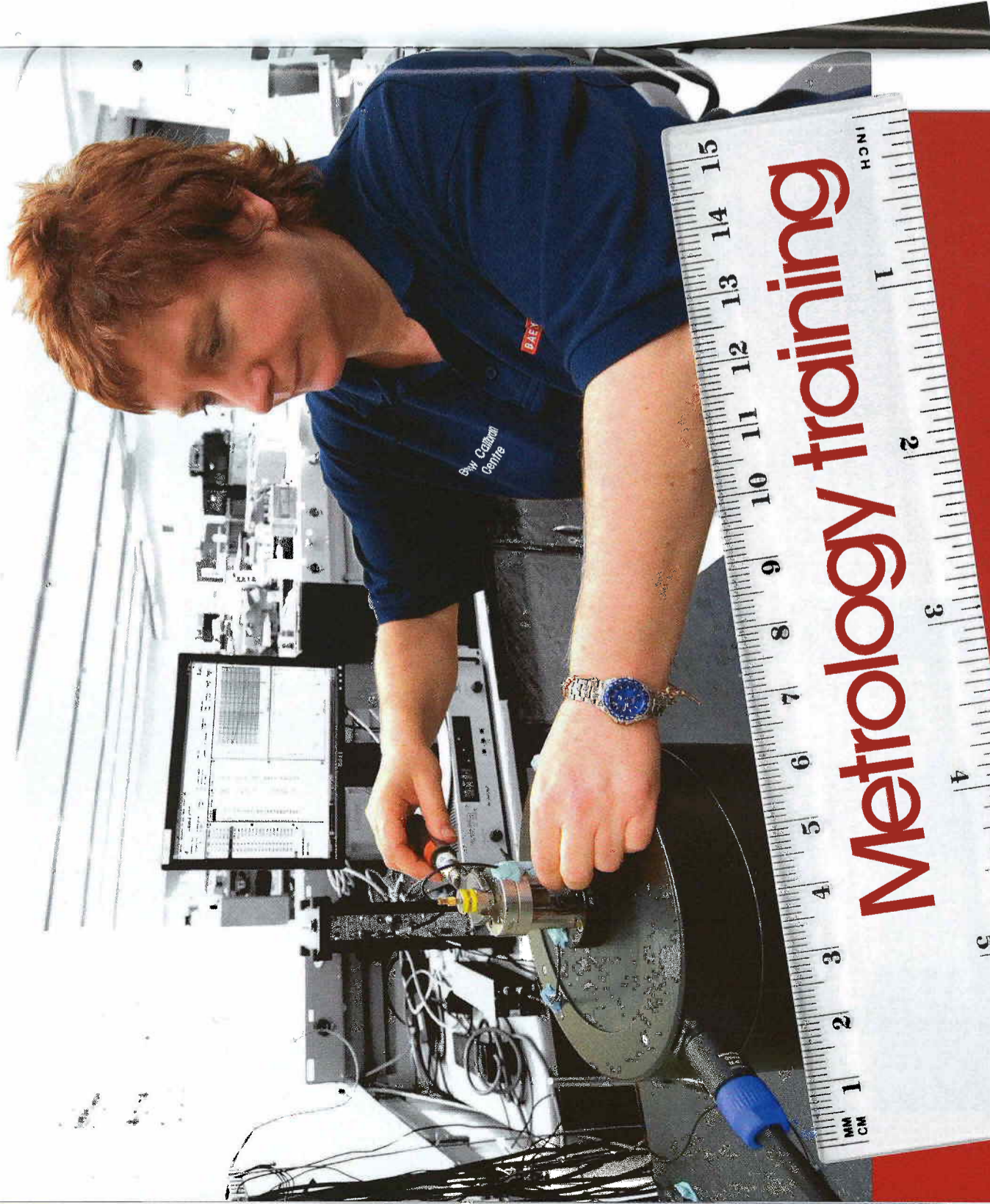
Level 1 provides the underpinning knowledge and expertise for anyone using dimensional measurement tools or requiring an appreciation of the importance of measurement. It covers an introduction to geometrical product specification, cartesian and polar co-ordinate measurements, a guide to tolerancing and an introduction to the principals of measurement. Level 1 is a three day course.

Level 2 comprises six modules and builds on what candidates have already learned. It encompasses geometric product specification, co-ordinate principles, first principle measurement, principles of process control, measurement calculations and a competence module in co-ordinate methods.

The courses are workbook-based, providing the evidence that the delegate has completed the course and the tasks within it. Upon completion they will receive an NPL certificate of qualification for that respective level.

Later in 2009 we will roll out level 3 of the training framework which will be aimed at those in the design community, those calling up geometrical tolerancing or those on the shopfloor putting measurement into practice. This level is for measurement developers, people who are looking to bring best practices into business and manufacturing environments, those who would know and recognise through the training they've had how to bring new equipment into a business. There will also be modules on surface roughness measurement and process control taught to a very high level. This is about training that has an impact on the bottom line.

Level 4 will be for people whose career paths are very definitely set on becoming senior metrologists within their business. It is project-oriented and will involve a secondment at NPL doing actual measurement development and innovation. Alternatively, candidates might identify an area of measurement innovation and definition in their own business and could collaborate with a university or NPL to develop a new measurement strategy.



Metrology training measures up



A recession is precisely the time to up-skill staff says **Tom Ashby**, business development manager for training at the National Physical Laboratory, the UK's national measurement institute.

