

# Cardiff experts set world standards in micro-engineering

December 8 2004

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*Component so small, it was believed impossible to create*

Micro-machining experts in Cardiff University's award-winning Manufacturing Engineering Centre (MEC) have created a vital component so small, it was previously believed impossible to produce. "This achievement is at the leading edge of world engineering practice," said Dr Stefan Dimov of the MEC. "We have seen research papers from Japan which suggest the Japanese are working along similar lines, but we have not seen any evidence of their work yet."

World renowned mould-makers and precision engineers, A F Gaskin of High Wycombe, set the MEC the task of machining a tiny coring pin to fit into a mould tool. The pin had to be 1mm in diameter at one end narrowing to just 0.15 mm at the other.

To create the pin, the Cardiff team used their expertise to employ a multi-axis wire erosion machine (EDM ) that uses a thin steel wire of 0.02mm – just a quarter the thickness of a human hair - to erode metal.

John Forde, Sales Director at A F Gaskin, said: "We were pleased with the pin that the MEC provided, it meant that we were able to demonstrate to our prospective customer that their requirements could be met – something of which they were unsure at the outset."

Geraint Evans, Business Development Manager at the MEC, added: "We have been able to show that micro-sized features, which were previously

dismissed at the design stage, can actually be produced."

Source: Cardiff University

Citation: Cardiff experts set world standards in micro-engineering (2004, December 8) retrieved 24 April 2024 from

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