

# Win on a wing and a prayer!

Company's prize for contribution to new Airbus



**Wing wizards:** MD Nick Cooper, left, Richard Burgess and John Wadsworth led the Airbus A380 team

ENGINEERING consultancy Bennett Associates' contribution to the development of the Airbus A380 'super-jumbo' has won it a prestigious award from the Institute of Materials.

Rotherham-based Bennett was part of a team that has been presented with the Institute's Gold Medal, presented to companies making "important contributions to the industrial application of materials."

The team was responsible for manufacturing the top skins of the wings for the A380, which is due to make its maiden flight next year and is designed to carry 555 passengers.

The wings will measure 40 metres - more than 130 feet - from wing-tip to fuselage and the skins will be made using a process known as creep age forming,

## By Bob Rae

which has never been used on this scale before.

Creep age forming involves using a combination of pressure and temperature to create a curved component and developing the process for use on such a scale and to tight tolerances would normally have taken quite some time.

To make matters worse, the four skin panels used to make each wing vary in thickness from 5mm to 25mm - less than 0.2 inches to just under an inch thick - and include complex curves.

Airbus UK was working to tight deadlines so it appointed Bennett Associates to design tooling and handling systems costing £7.7 million for making the wing skins.

The Whiston firm also project-manage the equipment's construction and installation at a new factory in North Wales.

The Institute of Materials says Bennetts' development of rapidly adjustable tooling with known thermal characteristics that could be tuned to the capabilities of the process equipment was a critical factor in the successful development of an affordable creep age forming process to make the skin panels, the first full set of which was produced last year.

In addition to the Airbus project, Bennetts has been involved in a number of other major projects, including the Channel Tunnel, the Gateshead Millennium Bridge, the Falkirk Wheel and a new lifting bridge near Canary Wharf, London.