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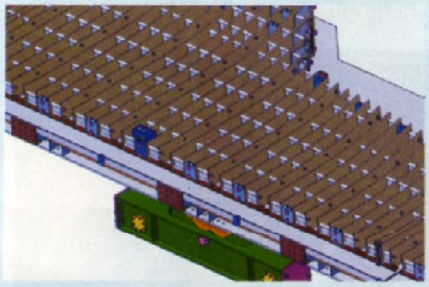
Catia on the wing for superjumbo takeoff

At 23 metres to 33 metres long and up to 2.5 metres wide, the top wing skins on the Airbus A380 "super-jumbo" due to make its maiden flight in 2005 will be the largest components ever produced by the creep-forming process. The first set of wings was recently completed at the company's site at Broughton, North Wales.



The tooling to produce these components was designed by South Yorkshire engineering consultancy Bennett Associates using one of the first releases of Catia version 5 developed by Dassault Systèmes. While Airbus itself had standardised on Catia version 4, Bennetts opted for version 5 because of its greater flexibility when handling large quantities of data and its ability to run customised programmes.

The eight forming tools designed by Bennetts – one for each skin panel – involve eight heavy-duty steel bases on to which some 280 ribs are mounted, which produce the finished shape required. This concept allowed a large proportion of each tool to be manufactured while the final wing designs were being completed and will also allow any future changes in design and materials to be accommodated relatively quickly and economically. Each item is about 40 metres long and weighs 50 tonnes.

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