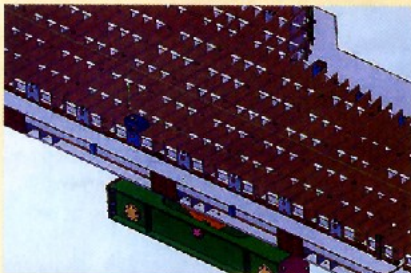


DESIGN SOLUTIONS
MARCH 2004

Software helps 'super-jumbo' wing production

The top wing skins on the Airbus A380 'super-jumbo', which is due to make its maiden flight in 2005, measure from 22 to 33m long and up to 2.5m wide, and are the largest components to be produced by creep-forming. These components are produced by eight tools which were designed by Bennett Associates using CATIA version 5 from Dassault Systemes and involve eight heavy-duty steel bases on which some 280 ribs are mounted to produce the



required shape. According to the company, this concept not only allows a large proportion of each tool to be manufactured while the final wing designs were completed, but also allows any future changes in design and material to be accommodated quickly.

Using CATIA, the company was able to generate wing profiles and tool designs quickly and, once the final designs were complete, the programme was used to output manufacturing information to the laser profiler which produces the ribs which determine the finished wing shape.

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