ACT Aerospace

Cuts detailed design time 90% with CATIA for Composites



Overview

Challenge

When ACT Aerospace used manual methods for detailed composite design, issues such as wrinkling and warping during layup required design changes that lengthened cycle times.

■ Solution

ACT Aerospace chose CATIA Composites Engineering to generate ply patterns, simulate lay up, evaluate producibility, and optimize design and material usage. CATIA also generates computerized numeric control (CNC) programs for creating layup tools.

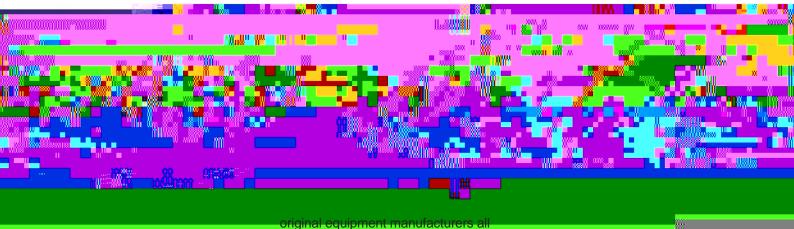
■ Benefits

ACT Aerospace has reduced the time required for detailed design and prototyping by 90% and reduced material usage more than 15% through increased precision.

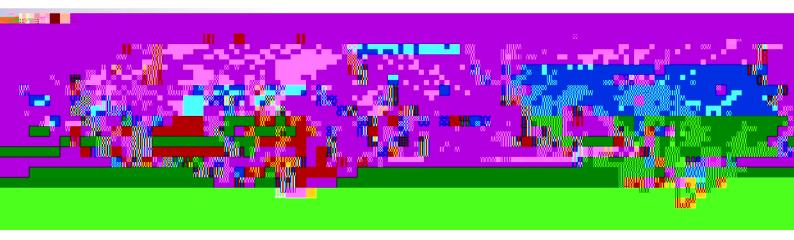
Composite detailed design presents challenges

ACT Aerospace of Gunnison, Utah, USA, is a leading provider of composite parts for aerospace and medical applications. After 24 years in business, ACT Aerospace has more than 50 employees and serves about 50 customers.

ACT Aerospace's customers typically provide 3D geometry of the tool surface and a 2D ply layout that has been engineered to meet structural require



use CATIA," said Andy Hill, general manager of ACT Aerospace. "CATIA Composites Engineering integrates advanced geometric modeling with a full range of composite design tools. When you make a change to the CATIA design geometry, the new geometry is automatically applied to the ply layout. With the other leading composite design solution, any change to the design geometry requ



"We can save an average of 15-20% on total material usage when exact ply geometry from CATIA is used to create a nesting pattern for our cutter table."

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