

Controlling Distortion During Machining of Aircraft Tail Frame



Challenges

Aircraft tail frames, typically made from forged and quenched aluminium 7000 series. With a span of 3 m and complex U-shaped geometry, it is impossible to achieve uniform cooling which results in non-uniform residual stresses.



How can I-SEC help?

Practical and large-scale experimental trials of controlling distortions through optimised machining strategy by taking into account the generation and evolution of residual stress.



Benefits

Reducing cost, saving materials and improved efficiency.