

Employer | Airbus Operations Ltd

Designers | Excent

Title | **Assembly of A350 aircraft wing
outer trailing edge**

“ This job used to be one which operators dreaded due to the difficulty in lifting and fitting of the jigs. Now it is a job that people offer to do. ”

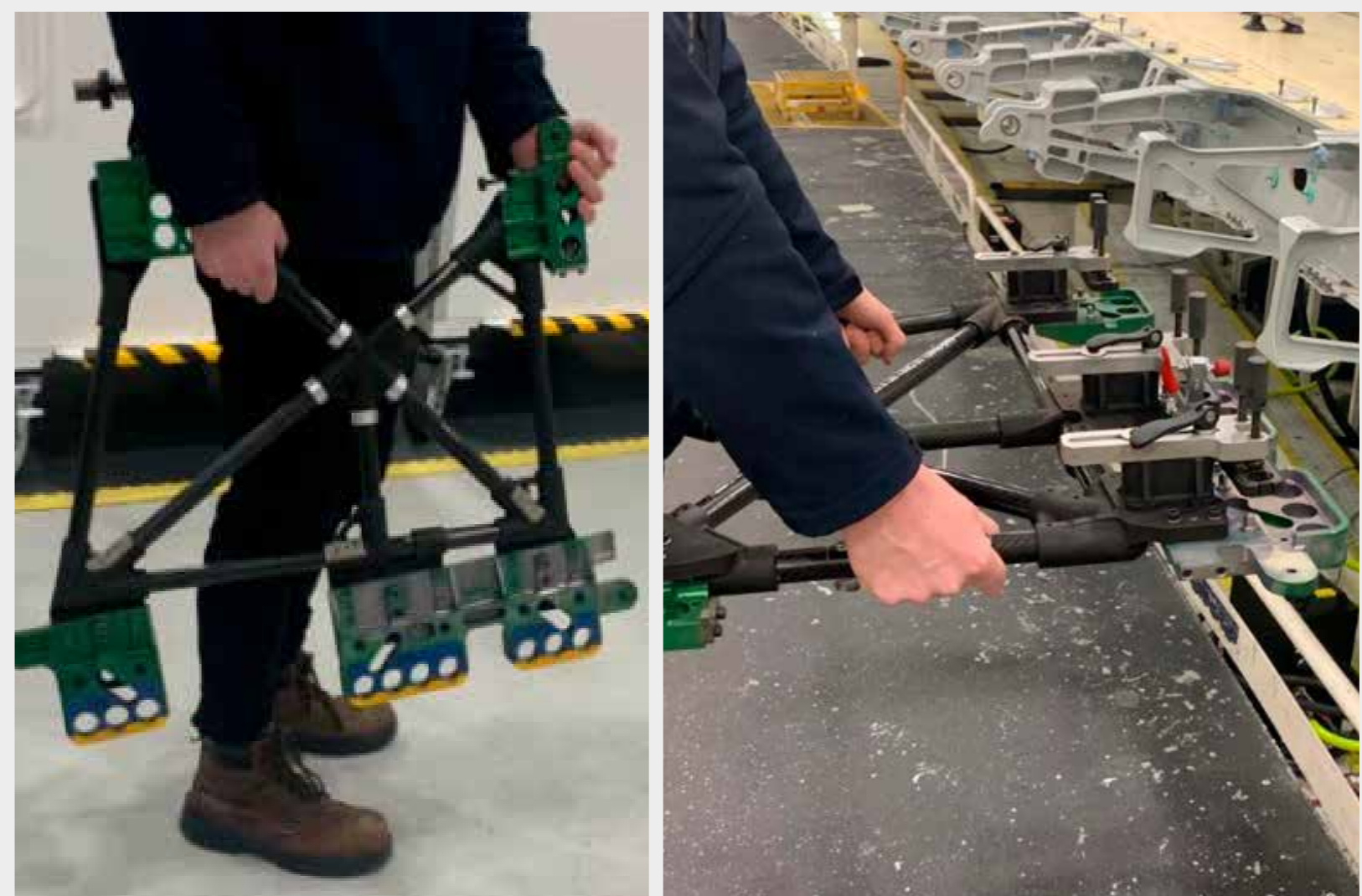


BEFORE



- Previously, the assembly of the A350 aircraft wing involved carrying and attaching jigs to the wing to assist with the accurate drilling of holes.
- The largest jig had a weight of 28kg, and the smallest jig weighed 16kg.
- The weight of the jig, combined with the awkward access points on the wing, created a potential risk of musculoskeletal injuries.

AFTER



- The team designed and developed a new tooling philosophy using a mixture of lightweight 3D printed parts and carbon-fibre structural beams.
- The design of the new jigs varied in weight with a maximum of 10.5kg. This, combined with a reduction in awkward postures, contributed to reduced musculoskeletal disorder risks.
- The new design also allows operators to get closer to the aircraft wing body, improving the visibility and quality of the job particularly for complex tasks.
- The new design also removed risks from sharp edges.