

# MSD Design Awards

Client: **Airbus UK**

Designer: **HTL**

## BEFORE



Assembly of the A350 wingbox involved access to overhead and awkward fastener locations when bolting inside and outside the tank

Electric tooling equipment varied in weight in some cases between 12-15kg and others >20kg depending on the diameter of the fasteners

The combination of weight, access restriction and location meant awkward postures, fatigue and risk of musculoskeletal injuries

## AFTER



A collaborative effort between Airbus & HTL group sourced and developed from the oil & gas sector, and trialed a small, lightweight, and low maintenance hydraulic tooling solution <5kg in weight

Impact of lower load weight and size of tools which operators lift and support during bolting was measured and confirmed to reduce risk of musculoskeletal issues with potential to reduce absenteeism associated with this task

Also contributed to lower risk of operator pinch points/finger traps

Airbus are currently exploring the opportunities for the technology to be being transferred across the Broughton & other Airbus group sites



*“Less operator fatigue – safer and much lighter than the old, heavyweight tooling”*

*“Easier to use: To operate, you just squeeze the pendant trigger & wait for the green light to stop flashing – this tells you that the full torque has been applied to the fastener – it’s that simple”*

