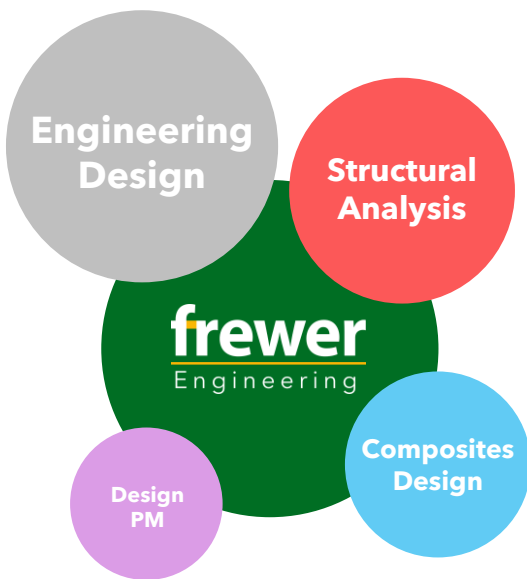


## Case Studies: Gas Turbine Ground Testing Pylon

Due to the increasing size of our end customers engine to achieve cleaner, more efficient flight, a new pylon design was required to demonstrate these improvements. Our agile multi-disciplinary team mobilised to meet these requirements.



### Withstand Larger Loads

Our capability to model complex systems enabled us to assess multiple designs with high confidence resulting in an optimised high-strength metallic structure, which acted as the backbone of the design.

### Increase Size, Reduce Mass

Lightweight composite panels were chosen to act as the critical aerosurfaces, one of many unique features of our overall pylon design. The panels complimented the metallic structure capitalising on the composites advantageous mass to stiffness ratio, to satisfy our mass budget.

### Flight-Tuned Stiffness

The pylon also had to dynamically respond in a similar manner to the flight version, ensuring that testing accurately reflected the flight case. Our simulations provided a safe way to test and explore different concepts quickly and efficiently. Thanks to our depth of knowledge in structural dynamics we successfully found a solution that suitably replicated the flight equivalent.

