



DESIGN & DEVELOPMENT

TURNING CONCEPTS INTO ENGINEERING REALITY

02

CAPABILITY STATEMENT

STRUCTURAL DESIGN, DEVELOPMENT & CERTIFICATION

- Aircraft Primary & Secondary Wing, Fuselage, Empennage, Pylons and Landing Gear
- Aircraft externally mounted equipment, including Radars, Antennas, Radomes and Fairings
- Aircraft Equipment Mounts, Floors and Interiors
- Lead or integrate client teams during development of products
- Gas Turbine Intake and Nuclear Coolant Filters
- Steel & Composite Marine/Naval Design, Development and Manufacturing support
- Civil & Military, Metallic & Composite Structure
- Design Optimisation of Structure
- Mechanical & Fluid systems
- Manufacturing, Production line and In-Service Support
- Modifications to Primary & Secondary structure whilst maintaining certification and clearances
- Demonstrating compliance with FAR, EASA and other regulations
- AS9100D Certified



DESIGN SIGNATORY

- Approved Checker and Approval Signatory for BAE Systems Harrier

DELEGATED SIGNATORIES

- Static Metallic, Composite & FEA Approval for A350 Fixed Trailing Edge, A400M & Boeing Wide Body Stow Bins
- Static Wing Approval for DFM and F&DT Approval for A320NEO Engine Pylon Attachment
- QinetiQ GmbH Structural CVE for Pilatus PC-12 Modifications



DESIGN & DEVELOPMENT

PROJECT EXPERIENCE AT A GLANCE

- A350XWB Fixed Trailing Edge Development. Led client teams & integrated with all partners, including Metallic Hinge Ribs & Composite Structural & Shroud Honeycomb Panels
- Aircraft externally mounted equipment, including Pylons, Radars, Antennas, Radomes and Fairings
- P-8A Poseidon Wing & Fuselage Stores Pylon Design, Certification and In-Service Support
- PC-24 Rear Fuselage Design, Optimisation and Certification Analysis, including Frames, Skins, Vertical Tail, Fin Attachment, elevator and control system
- PC-12/45 Major Modification to incorporate an Equipment Bay and integrate a Radar
- PC-12/47 Structural Installation Development to directly mount a Radar and other equipment
- Helicopter Gas Turbine Intake and Nuclear Coolant Filters

MARINE & NAVAL

- Composite Foremast on Type 26 Frigate, plus SATCOM Sponsons, Bridge Wing Bulwarks & Shaft Bracket Fairings
- Queen Elizabeth Class Carrier & Type 45 Destroyer steelwork seat designs and lifting & turning manufacturing support, tailored to the yard
- RemoveDEBRIS & other Satellite detail design.
- Design of Merlin & Wildcat flight test instrumentation support
- A321 Leading Edge drawing digitisation
- Boeing 787 Dreamliner Brake & Undercarriage concept design
- Boeing 737, 747 & 777 Floors & Interiors
- Entire Harrier Mk I & II Structure, plus Pylons, Mechanical & Fluid systems and Equipment Support. Post production support and enhanced clearances for new stores

SOFTWARE

- Our Design Engineers use powerful multi-processor computers and have extensive experience using industry standard software packages such as SolidWorks and CATIA V5
- Other packages can be utilised if required

www.cascade-engineering.co.uk

DESIGN CAPABILITY STATEMENT



CASCADE
ENGINEERING

DEPENDABLE ENGINEERING,
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