

# Composite Engineering

**BMT Nigel Gee provide a comprehensive composite engineering service. Our experience is based over 23 years in the design of high speed light weight yachts and commercial vessels covering numerous custom and production builds.**

From small components to complete structural packages for composite yachts up to, and in excess of 50m - we have delivered structures to meet the most demanding specifications.

For the production builder looking to expand their range into larger semi-custom yachts we provide insight to the design of larger structures, optimised for global strength, weight and production requirements, including management of the design to full Class approval. At the same time our wider portfolio of services in the provision of complete naval architecture and engineering gives us insight into the influence of structural engineering on the complete yacht.

With extensive knowledge of current classification and regulatory requirements we utilise first principles analysis finite element (FEA) and class specific analysis software to produce designs tailored to your requirements. Be it optimisation for weight, strength, production cost or a balance of these BMT deliver high quality detailed drawings, specifying all local structural details from cloth overlaps, local laminate reinforcement through to whole hull / superstructure schedules.

## Our services include:

- Concept and feasibility studies
- Advice on material specifications, independent of supplier
- Design to Class and management of Class approval
- First principles calculations
- Load prediction
- Finite Element Analysis
- Local and global structural optimisation
- 3D solid and surface modelling
- Mould and plant design
- Laminate Schedules
- Production design drawings
- Weight engineering and control
- Engineering audits, consultancy and troubleshooting
- Design to ISO 12215
- Build support



