

Our Naval Architects and Marine Engineers are able to provide all your Marine Design requirements having undertaken Ship and Boat Design Worldwide for Commercial, Offshore and Military Clients from the largest Tankers to the smallest Workboats.

Design services include:-

- Conceptual Design
- Naval Architectural Design – including Hullform design, Stability, Powering & Seakeeping
- Structural Design
- Engineering & Systems – including Piping & Electrical work
- Equipment Seating & Sea Fastening Design
- Production of Drawings & Specifications

Our comprehensive capabilities combined with continuous contact with Classification Societies, IMO and other Statutory Authorities ensures conformity to the latest regulations and standards.

Concept Design

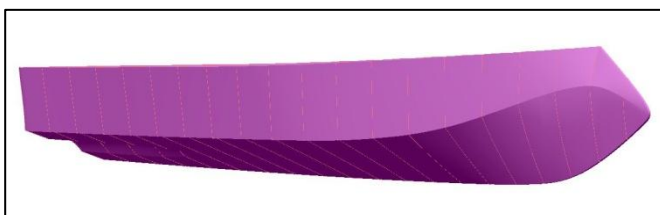
Closely liaising with the client to:-

- Identify trade constraints and Owner requirements
- Prepare preliminary specifications or statements of requirements
- Prepare preliminary design drawings such as general arrangements and mid-ship section drawings.
- Prepare preliminary weight estimates and stability calculations
- Prepare preliminary powering and resistance calculations
- Evaluate concept feasibility and economic cost, both operational and capital.



Naval Architectural Design

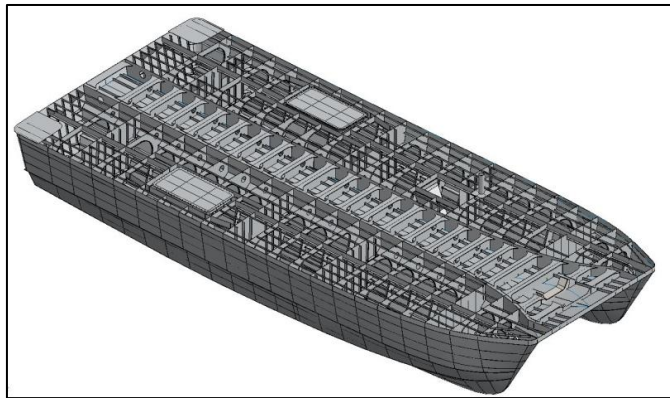
Making use of advanced software packages including Paramarine and Keel Marine's own in house developed programs, our team are able to provide a comprehensive range of naval architectural design services including the following:-



- Hull form development
- Stability calculations – intact and damage
- Powering and resistance calculations, including squat and shallow water effects
- Seakeeping calculations

Structural Design

Keel Marine are able to provide a full range of structural design services to suit client requirements from complete vessel design to small additions to the ship. Our Naval Architects and Structural Engineers are fully conversant with all major Classification Society Structural Rules. Alternatively where there is a requirement for a more tailored structural solution our team can work from First Principles, including the utilisation of Finite Element Analysis, where appropriate, to achieve this.



Engineering & Systems

Working with the client and equipment manufacturers, our team will design machinery and systems installations to ensure ease of access, reliability and simple maintenance. Typically produced drawings are as follows;

- Machinery arrangements
- Piping Schematics
- Stern Gear arrangements
- Electrical Schematics

Equipment Seating & Seafastening Design

Our design team are able to provide designs for a wide range of equipment seating's and seafastenings whether for permanent additions of machinery or temporary fixings for a cargo transport.

Production of Drawings & Specifications

Utilising our 2D and 3D CAD systems and based on the client's requirements our drawing office will produce any design documentation, drawings and computer models required for the successful completion of a project, from a single drawing to a complete fabrication package for a given vessel.

In addition to the production of original drawings Keel Marine's draughtsmen can assist in the conversion of manually drawn plans to CAD, either in 2D or 3D, including any modifications required to make use of the up to date working practices and building techniques.