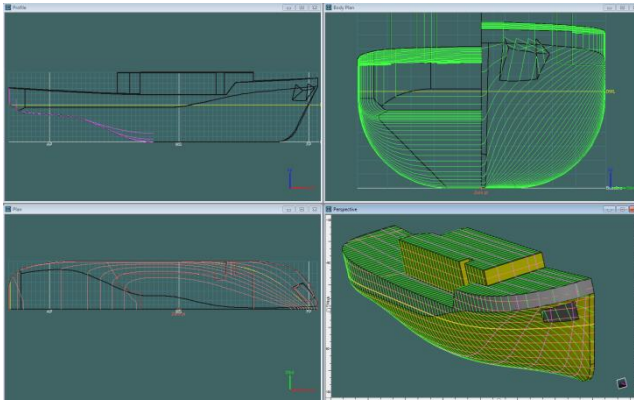
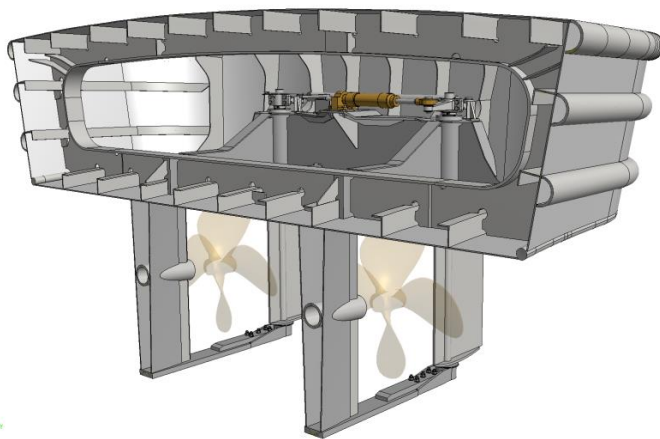


MID have extensive proven experience and technical know-how with the modelling of maritime design projects and in undertaking the detailed and specialist 3D computational analysis required to refine and optimise design projects.

As a critical part of the design process MID develop concept models to assist our clients' develop their own understanding of what they need and to help them prepare plans, drawings and specification for going out to tender.



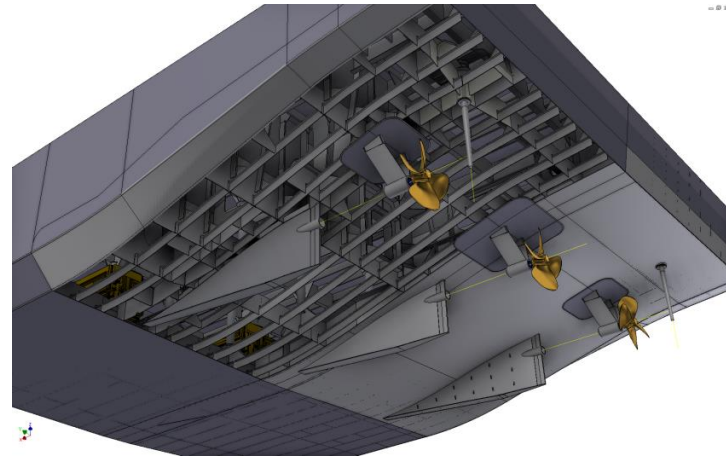
MID's 3D Parametric Structural Designs, with their integrated mechanical designs, ensure the whole design is understood and that functionality can be demonstrated before construction.



A render of MID's tendered design for the <500grt Tokelau Ferry

Advanced Renders of the 3D model assist our clients understanding of design issues at an early stage.

Complex NURB Surface Models allow our naval architects to refine, improve and enhance the properties, characteristics and overall effectiveness of the design.

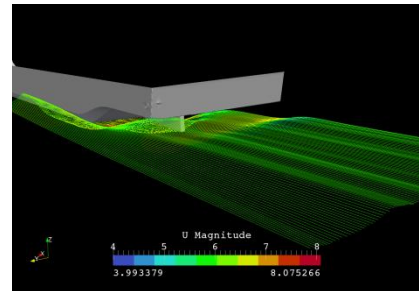
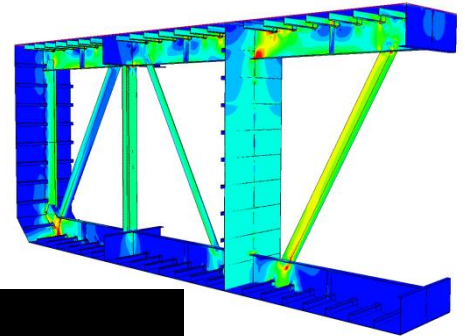


Understanding your design is critical. Full and detailed 3D modelling permits MID to fully appreciate the practicalities involved and it enables our detailed analysis of the elements of the design when required.

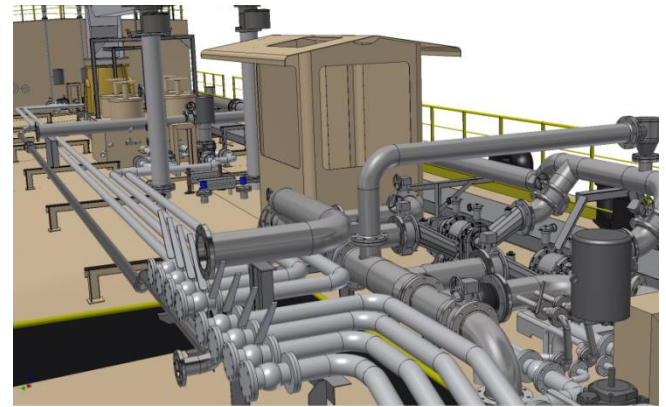
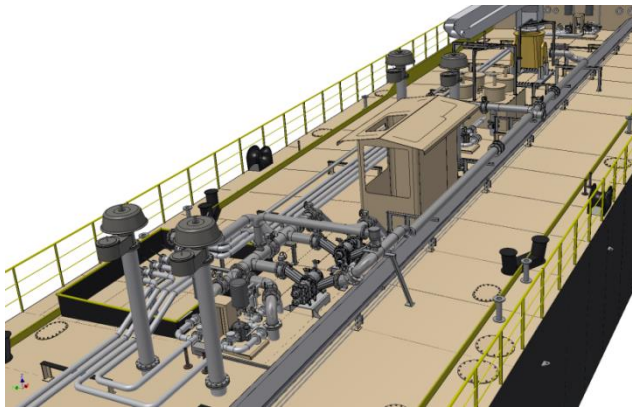
In specific situations, additional and more detailed analysis of a design's characteristics is required.

These specialist capabilities include:

- Finite Element Analysis (FEA) integrated CAD packages
- In-house computational Fluid Dynamics (CFD) (Virtual Tow tank testing).
- Hydrostatic stability Analysis
- Resistance and Propulsion Analysis
- Sea-keeping Motion Analysis
- Class Structural & System Calculations



Once the design has been finessed and improved to a confident final solution the detailed design work and integration of systems (including piping P&ID) to the structural modelling is undertaken and the final solutions developed for production.



Integrated Parametric Piping System Design and Structural Models

