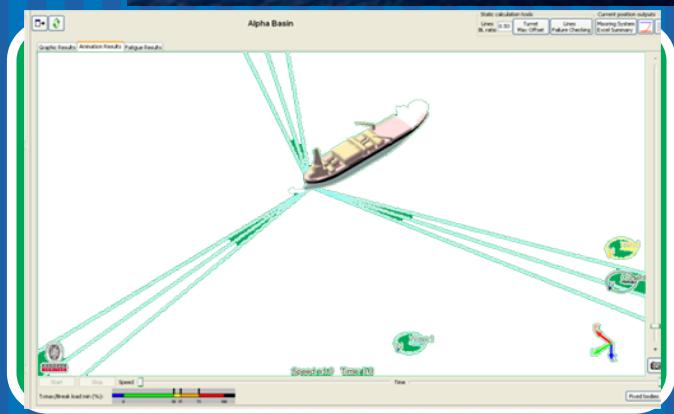


# Design & Engineering Services to Offshore Industry



VECTOR OFFSHORE AND  
MARINE TECHNOLOGY  
Email- [vectorshipdesign@gmail.com](mailto:vectorshipdesign@gmail.com)  
Mobile :- +91 8108198640  
<http://www.vomt.org>

## About Us

VECTOR OFFSHORE AND MARINE TECHNOLOGY is truly a full-service naval architecture and marine engineering firm. We can handle any vessel design and construction consulting requirements, ranging from new concept to shipyard liaison, and have organized our business in a way that facilitates the best-possible communication and understanding for all parties involved. Our services include Vessel Design, Construction Management, Production Engineering, Offshore Engineering, Vessel Modifications & Upgrades, Marine Solutions. Every project at VECTOR OFFSHORE AND MARINE TECHNOLOGY is also guided by a full-capability Project Management Organization (PMOrg). This specialized team of project management professionals (PMPs) oversees your project's progress every step of the way, ensuring a high-quality and timely final product.

Design & Engineering projects are executed using innovative and well-developed technology, which include Work Break-Down, Design-Spirals and 3D Space Arrangements/Models. The execution is augmented by well laid-down processes consisting of work specification spreadsheets and process checklists.



Our technical teams are organized as project teams and operations' teams.

Project teams comprise of project managers and project engineers responsible for project management and client interaction. Project teams are stationed in all our offices in various geographical locations.

Operations' teams comprising of Naval Architects/Engineers/Designers are responsible for project Deliveries and class approvals. They are stationed in Mumbai, India and Singapore.

We also have a Marine Division catering to the Design and Engineering of Multi-purpose support vessels, Cargo Vessels and other special vessels used in dredging and marine construction.



## Service Segments

Our services extend to the entire range of Floating assets used in the Offshore Industry and covers following types of vessels:

### New Designs

- Offshore Support Vessels
- DSV
- MPV
- Accommodation Barges
- Well Stimulation Vessels

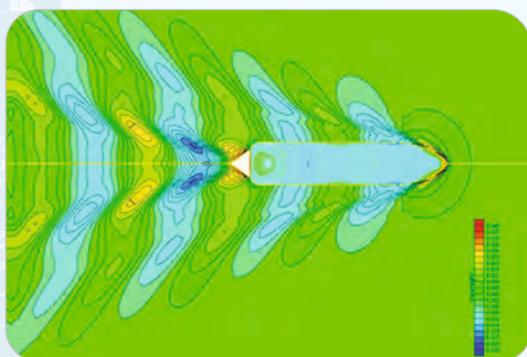


### Conversions

- Simple Vessels to high end complex Offshore Vessels
- Type Conversions, i.e. Tanker to Bulk Carrier, Ro Ro Vessel to Offshore MPV
- Alterations to change main dimensions
- Modification concerning life extension, facility upgrade, hydrodynamic behaviour etc.

Our Design Services include development of concepts and solutions consisting of floaters to address precise offshore operational requirements. We take such projects to completion with our experienced Detail Engineering team. Our handling of Conversion projects covers right from generation of concept design to complete detailed engineering, our project gallery shows projects involving conversion of simple floaters into those capable of carrying out complex offshore operations. These include MPV, DSV, Well Stimulation Vessels and other offshore vessels.

Once concept is accepted by the client and frozen, hull form is optimized and refined using advanced CFD tools, and further model testing is carried out often to confirm expected performance and power requirements. Similarly DP performance and safekeeping performance is assessed through advanced techniques.



## Domain Knowledge

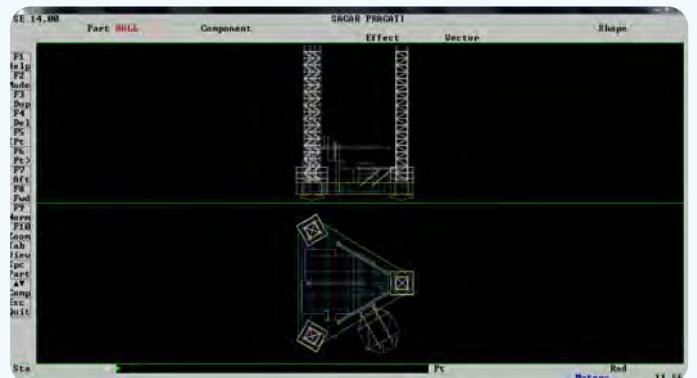
We have strong teams in several disciplines as follows:

- Naval Architecture
- Marine Technology
- Structural Engineering
- Marine/Process Engineering
- Electrical & Instrumentation
- System Integration
- Interface Engineering
- Regulatory Compliance



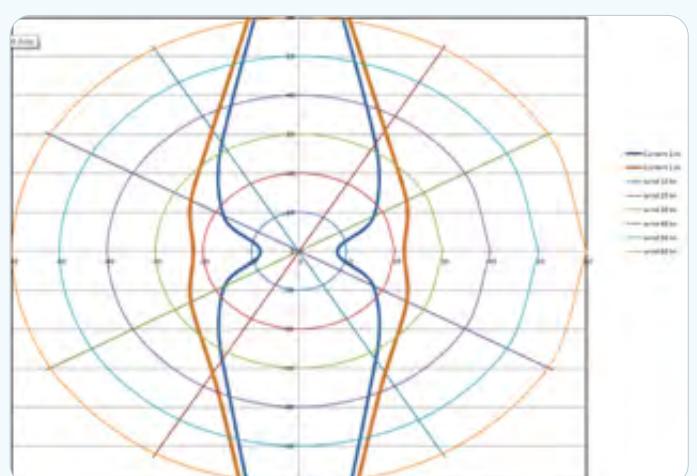
### Naval Architecture

- Hull Form, with CFD study and Hullform Optimisation
- Motion Analysis Seakeeping and Maneuverability
- Space arrangements
- Design for Loadline compliance (Freeboard/Bow Height)
- Design for watertight integrity & subdivision
- Intact & Damage Stability compliance
- Weight & COG determination/Monitoring



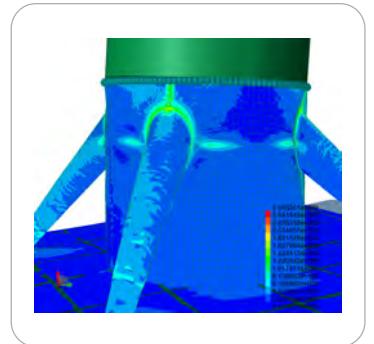
### Marine Hydrodynamics

- Hydrodynamics and Motion Analysis
- Mooring Analysis
- DP Studies
- CFD analysis of Hull Form



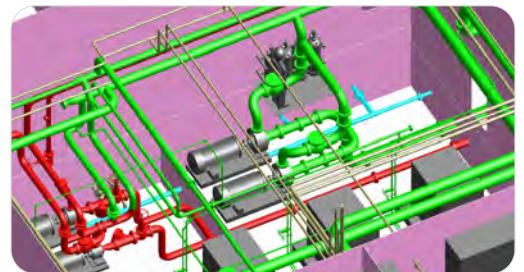
## Structural Engineering

- Structural Design & Arrangements
- Finite Element Analysis
- Fatigue Analysis
- Dynamic Analysis
- Buckling and Ultimate Strength Analysis of Panels and Shells
- Joint Strength Analysis of Tubular connections
- VIV screening
- Hydrostatic and Soil Collapse Analysis



## Marine/Process Engineering

- Pipe Flow & Piping System Design
- Pump Sizing
- Procurement Engineering
- Safety Engineering
- Layout Engineering in 2-D & 3-D



## Electrical & Instrumentation

- Load Lists & Power Balance
- Cable Tray Routing
- Cable Schedules
- Developing Control Philosophy
- Control Room Design



## System Integration/Interface Engineering

- Developing Interface registers
- Interface resolution

## Regulatory Compliances

The design process ensures that while meeting the client requirement, we keep constant check on the regulatory/statutory requirement to avoid design alteration at advanced stages. Other than the requirements of Class, SOLAS, local administration, the special requirements like UKOOA, OSV requirements, CAP compliance are taken care of at the very early phase of the design as a practice.

