



BUOYANCY
CONSULTANTS
MAKING YOUR PROJECT FLOAT!

CONSULTING
DESIGN ENGINEERING
PROJECT MANAGEMENT
ONSITE SUPPORT



Certified
ISO 9001:2015
ISO 27001:2013

OUR FOCUS

ON SCHEDULE
COST EFFECTIVE
HIGHEST QUALITY
CUSTOMER EXPERIENCE

ABOUT US

WHO ARE WE ?

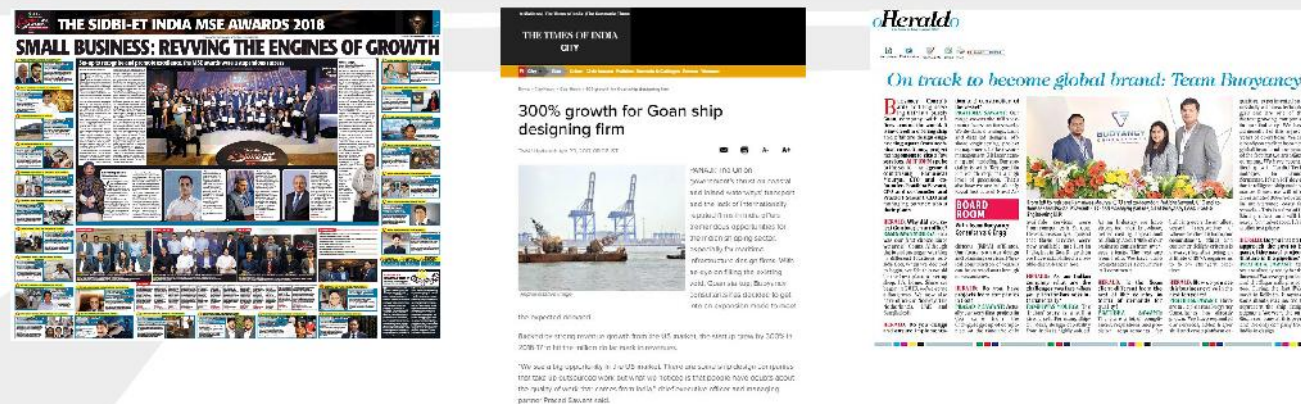
We are a Ship & Offshore design engineering related service provider covering the entire gamut of the ship design spiral and onsite production support. Our service philosophy incorporates the culture of listening to our customer, understanding their needs and providing highest level of quality professional & service. By implementing the latest technology trends, we make use of the most advance software to meet any complex engineering requirement of the Shipbuilding & Offshore Industry. We are Certified ISO 9001:2015, and India's only ISO 27001:2013 in the marine design sector.

OUR TEAM

Buoyancy Consultants core team includes marine design professionals like shipbuilders, naval architects, mechanical & electrical engineers having a collective working experience of above 250 years from various parts of the world including US, Europe, Asia and Far East.



MEDIA COVERAGE



AWARDS



DESIGN AREAS

BASIC DESIGN

Covering the entire design spiral, Buoyancy Consultants can start with the owner's mission requirement and generate the cost estimates.

Generation of Hull form considering the statutory free-board requirement along with necessary hydrostatic parameters, stability booklet, powering calculations, machinery arrangements, light ship estimates & scantling calculations.

CLASS DRAWINGS

Being well versed with different classification societies standards, we are in a position to deliver required class drawing layouts covering General Arrangement plans to Safety plans in line with SOLAS rules. Our capabilities at Buoyancy Consultants also include services to generate high level intelligent plans along with a basic 3D model to ensure you have an edge during the bidding process.

REPAIR & CONVERSION

The entire repair and conversion stages in the ship's life cycle can be catered by generating necessary renewal plans based on class surveys.

We can also consider and calculate the required local strengthening arrangement to satisfy class requirement.

Our team can also be part of asset's life cycle enhancement process to ensure required supervision during refurbishment, repairs & conversion.

Our expertise also lies in laser scanning & generation of intelligent detail design model via point cloud data for major repairs & refurbishment

PROJECT MANAGEMENT

With project management Buoyancy Consultants caters to ship owners by providing a one stop destination for its design and site supervision requirements.

Site supervision to ensure production or repairs are up to the operations requirement.

our production experts are deputed onsite for quality inspections and site surveys.

DETAIL DESIGN

Total Ship & Offshore design is not complete without Detail Engineering. Our unique 'Designed to Fit' concept ensures high profitability to shipyards. Buoyancy Consultants can start from scratch building the detail model of any kind of project with rule based quality check process and generate production drawings, assembly plans, work build strategy bending templates, profile sketches, part list, BOM, schematics, spool drawings, composite layouts, MTO's, isometrics and various customizable outputs as per client requirement

EXCELLENCE FOR YOU



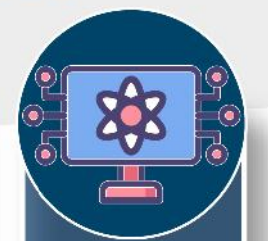
'Designed to fit' Design Packages

Ensures higher profitability during production due of efficient use of material, building strategy & Traceability



Live Project Management

- Constant online progress review for clients via project management interface
- Online model sharing for error free design



Use of Advance Software

- Complex situations are solved with fundamentally strong yet simple solutions

PROJECTS COMPLETED

- Bulk Carriers & Tankers
- General Cargo Carriers
- Platform Supply Vessels
- Ro-Ro Ships
- Naval Ships
- Passenger Vessels
- Offshore Specialized Vessels
- Offshore Platform - Jacket, Rig
- Semi-submersible & FPSO
- Floatel
- Vessel conversions
- Other Special vessels
- Industrial Plant Facilities



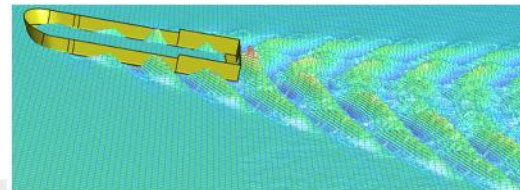
BASIC DESIGN

- ✦ Faired Lines plan & Hull Form
- ✦ General Arrangement Plan
- ✦ Technical Specifications
- ✦ Resistance/Powering Calculations
- ✦ Class Approvals
- ✦ Subdivision & Capacity Plan
- ✦ Hydrostatic Data
- ✦ Shell Expansion Plan
- ✦ Various Class Drawings
- ✦ Scantling Calculations
- ✦ Stability Booklet
- ✦ Safety Plan - LSA, FFA, etc
- ✦ Statutory Plans - Freeboard, Tonnage etc
- ✦ Ballast Management Plan
- ✦ Accomodation Plan
- ✦ Propulsion System Arrangement
- ✦ Piping System Design & Machinery Selection- P&ID
- ✦ Electrical Design - GMDSS, LSS, SLD, Load Calculations etc
- ✦ HVAC Design

PRELIMINARY DESIGN

Based on the mission requirements, we deliver various outputs.

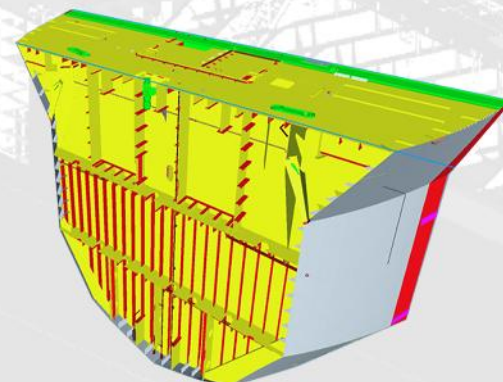
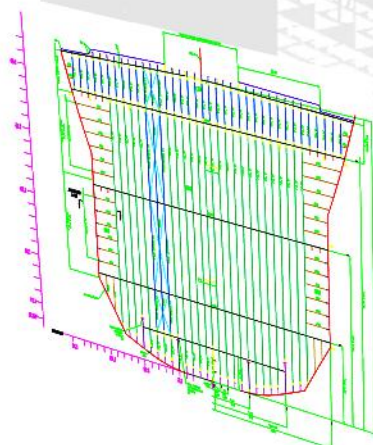
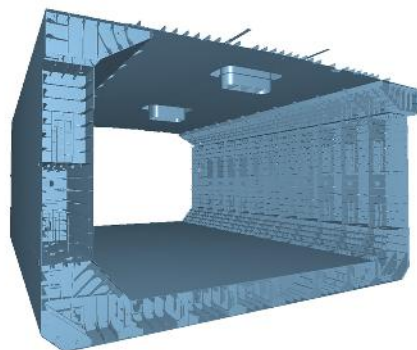
- ✦ Study of Mission Requirement
- ✦ Preliminary General Arrangement Plan
- ✦ Preliminary Technical Specification
- ✦ Special Equipment Details (if any)
- ✦ Initial Estimate



CUSTOM DESIGN

Based on your requiremen select an existing design or get a custom design

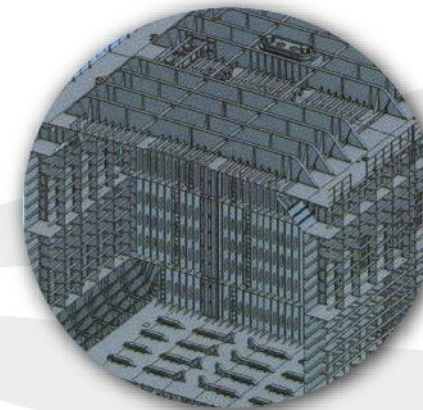
WE LIAISE WITH VARIOUS CLASSIFICATION SOCIETIES FOR NECESSARY APPROVALS.



DETAIL DESIGN

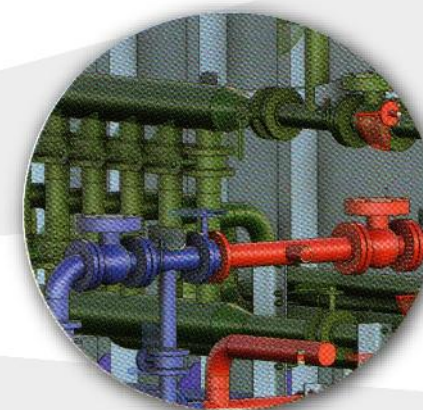
EXPERTISE IN STRUCTURE

- ✦ Lines production and hull form
- ✦ Shell plating and hull structure
- ✦ Nesting
- ✦ Assembly planning and sequencing
- ✦ Skid modeling for curved hull erection and block lifting plans
- ✦ Block drawings and reports / list
- ✦ Hull production information
- ✦ Bending templates
- ✦ Profile sketch and bending table



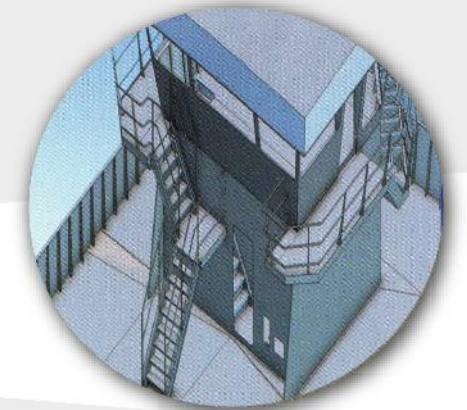
EXPERTISE IN OUTFITTING

- ✦ Creation of project libraries
- ✦ Pipe, HVAC and cable tray engineering
- ✦ Equipment modeling
- ✦ Foundations and pipe supports
- ✦ Composite layout / arrangement drawings
- ✦ Isometric and spool sketches for pipe and HVAC
- ✦ Partlist / Bill of materials

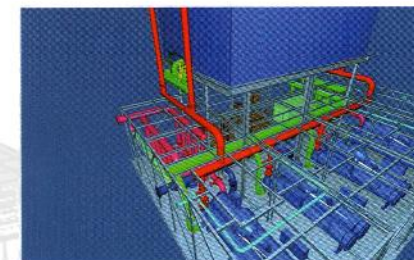


EXPERTISE IN HULL - OUTFIT

- ✦ Machinery foundations
- ✦ Stairways & ladder design
- ✦ Railings and protection cage
- ✦ Drip tray and other minor supports
- ✦ Portable tanks.
- ✦ Walkways & mast design.
- ✦ Necessary arrangement drawings
- ✦ Partlist / Bill of materials



MEP



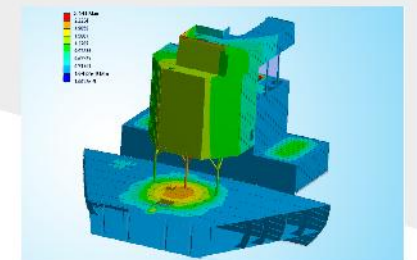
- ✦ MEP Design & Drafting
- ✦ Mechanical Design Drawings
- ✦ Electrical System Design
- ✦ Plumbing Drafting Drawings
- ✦ 3D Modeling Services
- ✦ HVAC System Duct Design
- ✦ Revit BIM Modeling

PLANT DESIGN



- ✦ Process Piping
- ✦ Mechanical and Civil Structural
- ✦ Instrumentation Engineering
- ✦ Development of Process Flow Diagrams(PDFs), Plant & Facility
- ✦ Detailing Support & CAD drafting of P&ID in 2D
- ✦ 3D modeling & Detail design

ANALYSIS



- ✦ FEA
- ✦ CFD
- ✦ Vibration Analysis
- ✦ Sea Keeping Analysis
- ✦ Structural Analysis

Buoyancy Consultants
is platform independent.
Specialised in
3D design Software :
Autocad, Cadmatic, Aveva
Ship Constructor, Revit,
Solidworks, Maxsurf, etc.

LASER SCANNING

Buoyancy Consultants uses this technique for collecting high-density 3-D data to create digital models of complex entities such as hull models, seagoing vessels, process plant, engine rooms, ships systems, ballast water management integration, historical monuments and other big structures and locations, both inside and out. Using the highly accurate 3-D scan cloud point data CAD models of as-built structures is intelligently modelled, which is used for further design process.



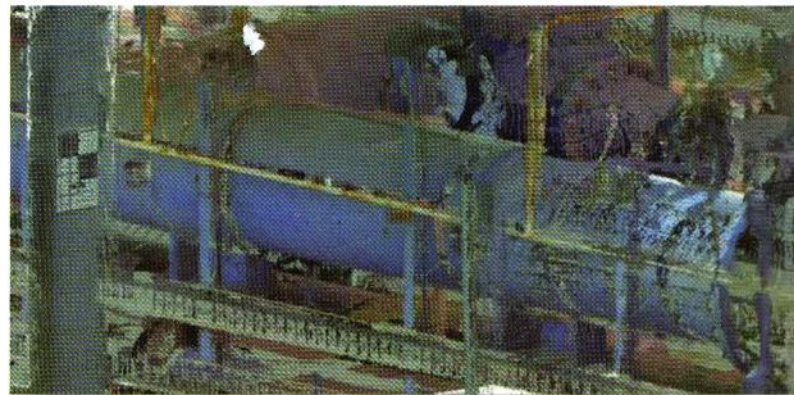
BOAT DESIGN

- ✦ Budgetary estimation.
- ✦ Statutory body approvals like COP, MMD etc.
- ✦ Construction drawings for FRP & Steel boats.
- ✦ Mono hull, Catamaran & Trimaran design.
- ✦ Stability booklet & Inclining experiment.
- ✦ Hydrostatic data.
- ✦ Piping, HVAC & electrical drawings.
- ✦ Interior layouts.
- ✦ Accommodation & furnishing.
- ✦ Trial reports.



ONSITE SERVICES

- ✦ Onsite supervision for new buildings, conversions & repairs.
- ✦ Sea trials.
- ✦ Life extension surveys.
- ✦ Inclining experiment.
- ✦ Condition assessment survey report.
- ✦ Machinery condition report.
- ✦ Tank calibration.
- ✦ Refurbishment – Via laser scanning.
- ✦ Team deputation for design service.
- ✦ Design manpower supply for variable tenure.



PROJECT MANAGEMENT

We provide a one stop solution for ship owners as their project managers. This includes dealing with shipyards, equipment suppliers, classification societies & other statutory bodies. Via our Indian network of shipyards we can undertake new building projects with necessary assistance for shipyard selection, bidding & production supervision for ship owners.

We design shipyard layout, drydock & berthing jetties for efficient operations of berthing, new building & repair projects.

REFERENCE PROJECT

FPSO Conversion

Project: FPSO Yinson .

Scope of Work:

Hull Design – Detail Design:

- ✦ 3D-Block modelling.
- ✦ Sheet drawings.
- ✦ Material Take Off's/Reports.

Outfitting Design – Piping, Electrical & HVAC: -

- ✦ 3D- Routing of pipelines & HVAC Space reservations
- ✦ 3D- Component/Equipment Modeling.
- ✦ Spool, isometric, layout & support drawings.
- ✦ BOM report



2600 DWT River Sea Vessel

Scope of Work:

Hull Design:

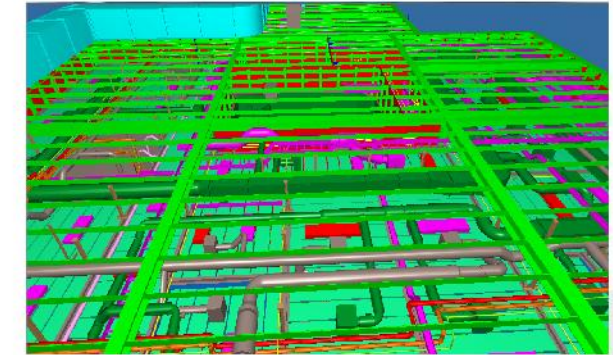
- ✦ Production Fairing of lines & finalization of hull form.
- ✦ 3D-Block modeling.
- ✦ Assembly Drawings.

Outfitting Design – Piping, Electrical & HVAC:

- ✦ 3D- Routing of pipelines, equipments & HVAC

Hull – Outfit Design:

- ✦ All Machinery foundations.
- ✦ Detail drawing of hatches, ladders & stairs



LNG Yamal (World's Largest LNG field)

Project: LNG Yamal

Scope of Work:

Structure & Outfitting Design :

- ✦ Routing of pipelines, HVAC & electrical cable tray.
- ✦ Pipe, duct & cable tray support.
- ✦ Extraction of isometric and layout drawings.
- ✦ MTO list generation and co-ordination plans.



22000 DWT Ocean Ammonia Carrier.

Scope of Work:

Hull Design:

- ✦ 3D-Block modeling.
- ✦ Assembly Drawings.

Outfitting Design – Piping, Electrical & HVAC:

- ✦ 3D- Routing of pipelines, equipments & HVAC

Hull – Outfit Design:

- ✦ All Machinery foundations.
- ✦ Detail drawing of hatches, ladders & stairs

PROJECTS FLOATED



OUR CLIENTS



DELTINGROUP
HOTELS AND CASINOS



CHALMERS

Henderson
INTERNATIONAL GROUP

OUR GLOBAL NETWORK

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