

# ABYSSAL

TECHNOLOGIES

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# SERVICES OFFERED



**TOPSIDE**



**JACKET**



**FPSO**



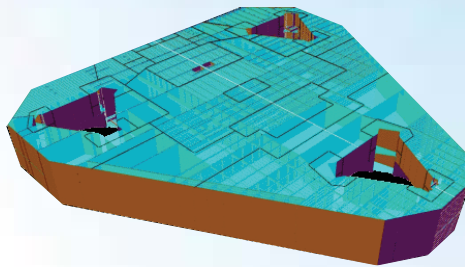
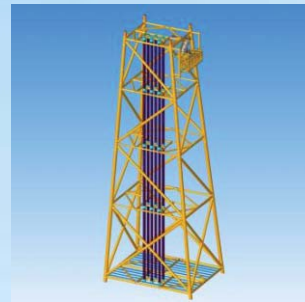
**JACK UP**



**SUB SEA**

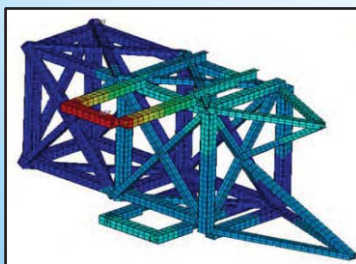
## Concept Engineering

- Basic Structural Layout
- Basic Stability/ Mooring Analysis
- Brief Technical and Material Specification
- Conceptual Structural Analysis
- Structure Optimization (weight, material and cost)



## Detailed Engineering Design

- Structural Design as per relevant Codes and Standards
- Design Basis and Technical Specifications
- Detailed Structural Analysis
- Detailed Naval Architectural Calculations
- Design Drawings
- MTO / WCR
- Secondary and Tertiary Steel Design



## Special Analysis and Design

- Finite Element Analysis
- Computational Fluid Dynamic Analysis
- Pipe Stress Analysis

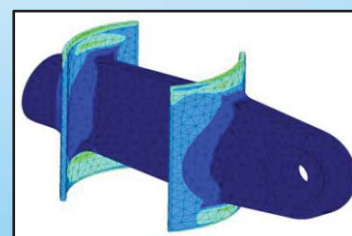
## Front End Engineering Design

- Concept Review and Optimization
- Primary Structural Sizing
- Preliminary Structural Analysis
- Design Brief and Material Specification
- Naval Architectural Calculations
- FEED Technical Document
- General Arrangement Drawings



## Engineering For Modification

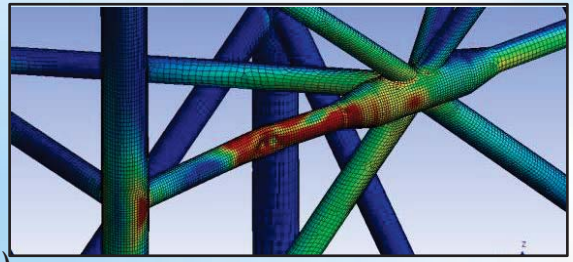
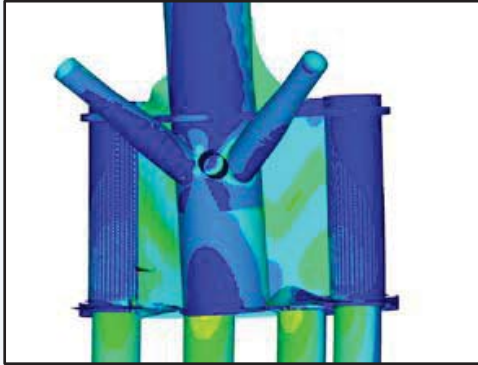
- Brown field Modification
- Re-assessment of structure based on API RP2A and other codes
- Conversion of old engineering models in compliance with new codes
- Structural Integrity Management



# CAPABILITIES

## Structural Analysis & Design

- Pre-service Strength and Fatigue Analysis
- In-service Strength & Fatigue Analysis.
- Non-Linear Analysis
- Pushover Analysis
- Accidental Analysis (Blast/Ship Impact/Dropped Object)
- Seismic Analysis
- Miscellaneous Structure design

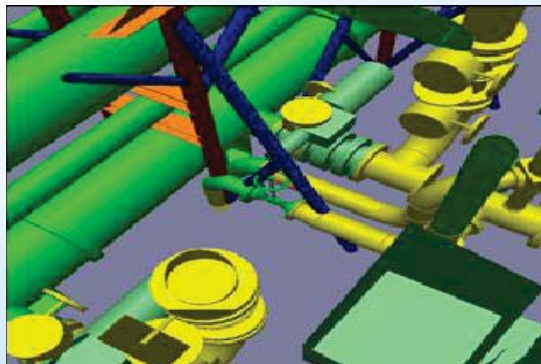
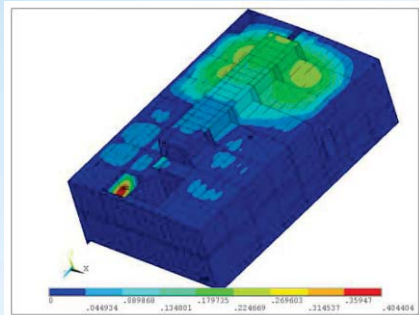


## Finite Element Analysis

- Linear and Non-linear Strength Analysis
- Thermal Analysis
- SCF Estimation
- Pipe Stress Analysis
- Buckling Analysis
- Dynamic and Vibrational Analysis
- Computational Fluid Dynamic analysis
- Pipe Stress Analysis
- Pressure Vessel Design

## Naval Architecture Capabilities

- Global and Local Structural analysis
- Stability & Motions Analysis
- Mooring Analysis
- Conversion Design



## CAD Capabilities

- Primary Structural Drawings
- General Arrangement
- Casting Arrangements and detailing
- Standard Detail Drawing
- Secondary Steel Drawing
- Appurtenance Drawing
- Cathodic Protection Drawings.
- Class Drawings.
- Production drawings

## Miscellaneous Capabilities

- Site Surveys capabilities including as-built, site condition prior to Brownfield design or remedial works.
- Transportation fastening for equipment and structures by sea, rail, road or air, including grillage, lifting frames
- Modification and redesign of existing facilities
- Laser scanning to build 3D model of existing structure
- MTO Development and Costing
- Independent design verification for third party



# ABOUT US

## Company Profile

Our team have worked on large array of available technologies ranging from Fixed Structures to Floaters.

We have worked in major oil rich areas like North Sea, Middle East and Indian waters. Our engineering services include Jackets, Topsides, FPSO Modules and Jack up rigs.

We have worked in various design codes such as API, ISO, Norsok, ABS, DNV, LR. We also have expertise in other specialized services like Linear and Non - linear Finite Element Analysis (FEA) and CFD.

Abyssal Technologies is based in "BanyanCity" (Vadodara). Vadodara is situated on the banks of the river Vishwamitri and is a prominent city of Gujarat, having educational, industrial and commercial centre

An Engineering Way of Design..

# ABYSSAL

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