



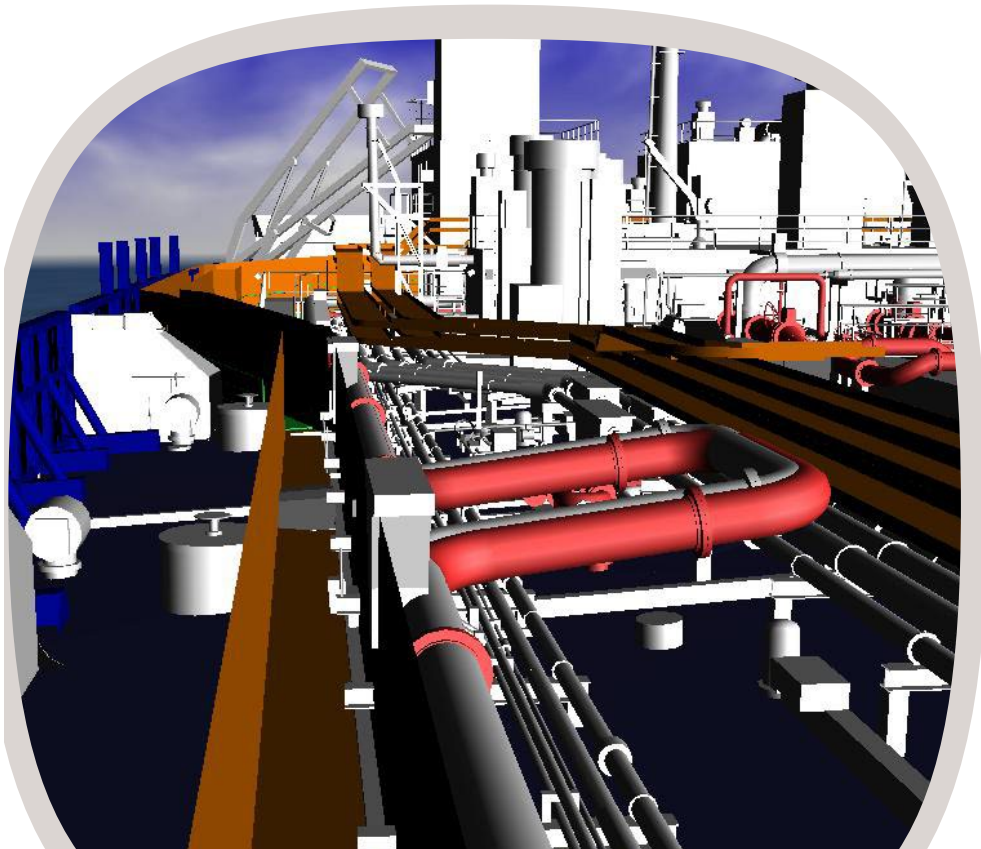
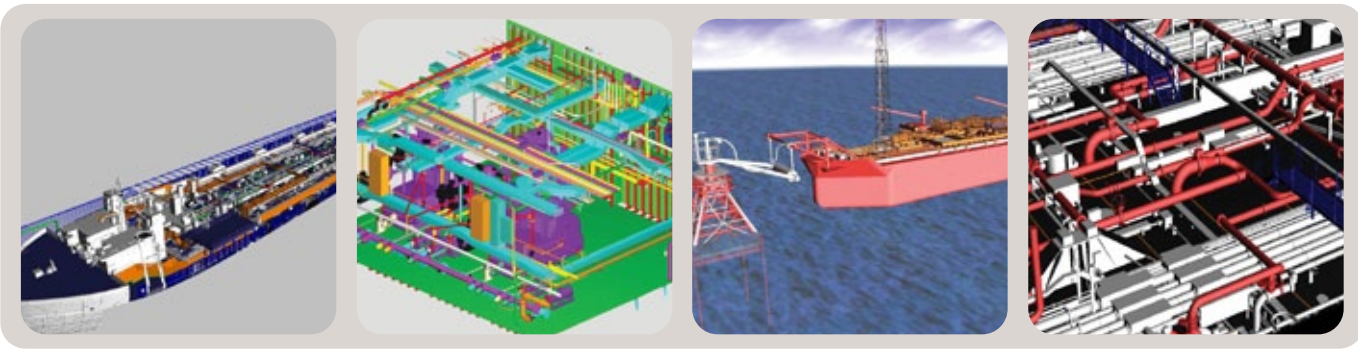
## Marine & Offshore Engineering

### Engineering And Consultancy Services

As part of our holistic approach to asset integrity the VELOSI Group has a specialized division with specific expertise in the upstream oil and gas industry including FPSO's, FSO's, FSU's, MOPU's, Semi-sub's, Jack Up's, TLP's, Spar's and Pipe-Lay barges and alike.

### Services

Our Engineering services provide customized high-quality, professionally-managed, cost-effective Design and Engineering solutions to clients worldwide. We have a strong design engineering team with extensive experience in the oil & gas and offshore industry.



### **The broad range of services offered by this division includes:**

- Consultancy during Invitation to Bid (ITB) preparation, tendering and bidding
- Preparation of Owners / Yard specifications
- Development of Conceptual / Basic / Front End Engineering and Design (FEED) / Detailed Engineering Design & Analyses
- Repair / Modification Design & Analyses
- Engineering Drawings / Analyses Reports including Finite element and Fatigue
- CAD 2D & 3D Design & Drafting
- Project development
- Project feasibility studies (New-Build / Conversion / Modification)
- Vessel suitability, survey and selection
- Cost estimating and budgeting
- Planning project schedule to specific needs
- Preparation of technical specifications and those for the building yard
- Concept and Basic Design tailored to suit Client
- Conceptual planning and design
- Systems engineering
- Instrumentation and control engineering
- Hydrodynamics and Limit State Analysis
- Structural evaluation
- Production system conceptualization and basic design
- Engineering Drawings / Analysis Reports for Client and Classification Society
- Statutory authority's approval and verifications
- Isometrics, spool piece and shop fabrication drawings
- Production of 'As-Built' documents
- Load Out, Transportation & Installation Analyses
- Project Development & Management execution

### **Type Of Projects**

The services can be deployed across the upstream oil, gas and power generation sectors; however VELOSI has particular expertise in new build or conversion projects relating to any Offshore Facility.

### **Software Tools & Facilities**

VELOSI recognizes that a major portion of projects which undergo cost over runs are attributed to poor or mediocre engineering. Hence, to match the rapidly changing scenarios in technology, we utilize state-of-art hardware and engineering software tools to ensure high-quality engineering deliverables at optimum productivity and in a cost effective manner.

Examples of Software tools are as follows :

- AutoCAD (2-D drafting)
- NX Nastran & FEMAP (FEM Analysis)
- PDMS (3-D Design)
- SACS
- CAESAR II
- PV Elite
- ANSYS
- ABAQUS
- Ultramarine MOSES (Motion Analysis)