



Shipyard in a box

Onshore & offshore



Shipyard in a box

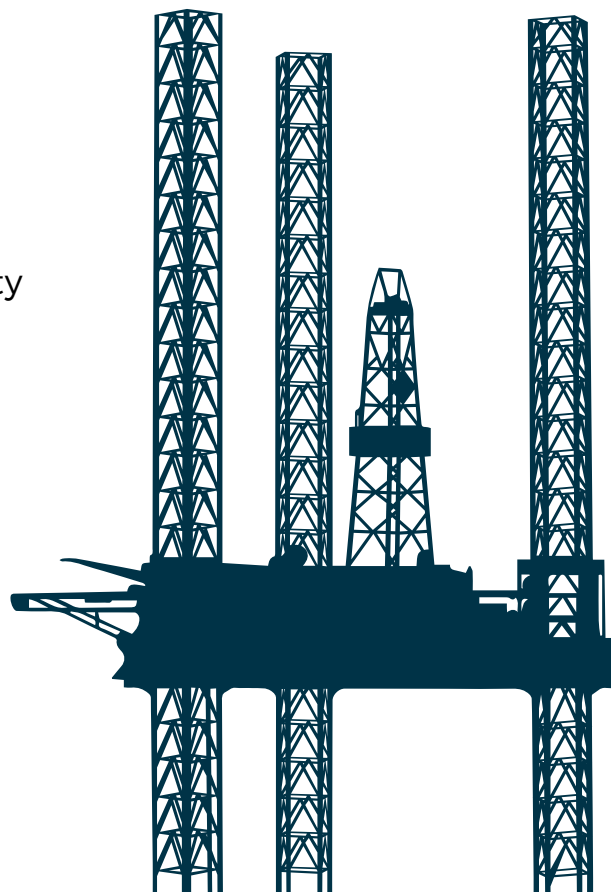
At Semco Maritime our core business is know-how and project management during extensive refurbishment, modification or compliance renewal projects for mobile offshore drilling units offshore or in a yard. To ensure our competencies are available where and when they are needed we have combined our mobility and flexibility into a focused service offering »Shipyard in a box«.

We believe in a flexible concept of drilling rig and vessel upgrading onshore and offshore anywhere in the world. We can perform wide range of modifications and upgrades while your asset is in operation.

The »Shipyard in a box« concept is a way of illustrating mobility and flexibility during rig upgrade operations worldwide both onshore and offshore. At Semco Maritime we can execute all sizes and types of offshore modification and service projects on rigs. When required we can take care of large offshore modifications and upgrades, in this case we utilize our shipyard in a box offshore concept.

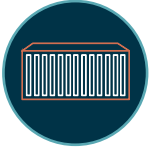
Typically, we use shipyard in a box concept for large offshore or onshore projects that require project management organization. Besides the extensive refurbishment, modification or compliance renewal projects, we offer a wide range of minor modifications, upgrades and services. These projects typically does not require a complete project organization setup. No matter the size of the project, we ensure that experienced professionals with focus on cost efficiency manage it.

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The three pillars

»Shipyards in a box« concept consists of three pillars; the boxes - containers, the resources and the project management organization.



The boxes are containers, which has been outfitted to transport necessary tools and equipment for offshore projects or various facilities, which is often required during yard stays. Semco Maritime has an extensive fleet of certified containers for use offshore and onshore.



The resources used during rig upgrades are mainly multi-disciplined personnel with origin in Semco Maritime's worldwide organization, personnel from one of Semco Maritime's core suppliers, or of local origin within the area where project is taking place. It is of Semco Maritime's interest to utilize local labour whenever possible, due to the cost efficiency and the possibility to mobilize additional local manpower with a short notice. Semco Maritime's in-house personnel will always monitor and manage all the work scopes.



The project management organization is the most vital part of »Shipyards in a box«, since they represent the core competence of Semco Maritime, namely, design, engineering, project planning, controlling, management, HSE and overall project know-how. We offer full turnkey project management services and take a flexible approach to each project. Depending on the size of the project and the clients' needs, a customized project organization is proposed, capable of executing the project within the agreed time-schedule and budget.



Offshore

Shipyard in a box

Semco Maritime provides a comprehensive range of upgrade services offshore to ensure that rigs meet global safety, operational and legislative demands. In addition to the full range of specialist services within electrical, telecom, mechanical and structural engineering, we offer efficient and experienced project management for all sizes of projects. We can manage projects starting from minor jobs as service or preventive maintenance program to major modification projects offshore. In case of large offshore modifications and upgrades, we utilize our offshore shipyard in a box concept.

As your modification and service partner, with extensive worldwide operations, we are capable of customizing our teams to meet your demands. Prioritizing responsiveness, we appreciate our clients' need for swift mobilization, and we take project time limit, size, budget and multiple disciplines into consideration when we respond to your choice of our special solution packages.

The shipyard in a box offshore focuses on continuous class renewal, preventive maintenance and large modification programs. We aim to limit upgrading costs to minimum, by decreasing time needed in yard. Our preventive maintenance program can help you avoid system breakdowns and limit upgrading costs to a minimum.

Typically shipyard in a box approach is used when project organization is required. The project management team will establish an installation or service plan for work to be performed and crew loading throughout the project with respect to the available beds and drilling operations. Semco Maritime ensure that all HSE requirements from the client and Semco Maritime are followed and maintained during the entire project.



Capability list

SUPPORT	<ul style="list-style-type: none"> Functions Project Management Mechanical engineering Electrical engineering HVAC engineering Piping engineering Structural engineering Automation engineering Telecom engineering Naval Architecture Front end engineering 2D and 3D models FEM analysis Load and short circuit analysis / study Project Planning
SURVEYING	<ul style="list-style-type: none"> Mechanical, structural and piping survey E & I and Telecom survey 3 D Scan
MODIFICATION AND UPGRADING	<ul style="list-style-type: none"> Electrical installation High voltage installation Instrumentation installation Telecom installation Control and Automation installation Mechanical installation Piping installation Structural installation HVAC Installation Hydraulic installation Accommodation modification Painting** Scaffolding and Rigging Multi discipline installations Special welding repairs Steel fabrication
SERVICE	<ul style="list-style-type: none"> Electrical service Fire fighting system service Telecommunication system service Control, Safety and Automation system service and obsolescence Ah-hoc support personnel
PRODUCTS AND TECHNOLOGY	<ul style="list-style-type: none"> Delivery of parts / components Delivery of parts / components Fire fighting systems Telecommunication systems Ballast Water Treatment system Control, Safety and Automation systems HPU systems Nitrogen generation
CONCEPTS	<ul style="list-style-type: none"> Continuous maintenance program Front end engineering and planning (FEED) Accommodation modification Safety and support systems for helideck EX Maintenance Potable water

Project Management

- Project definition sheet
- Project planning
- Multi-discipline managers and supervisors
- Work breakdown structure
- PA budget compilation
- Project execution and control plan
- Survey reports, incl. Class
- Method statements / Work Packs
- Risk management, incl. critical path and potential clash management
- Front end engineering and planning

Mechanical and Structural

- Prefabrication of structures and pipes and installation
- Primary steel renewal and modifications
- Inspection and welding repairs
- HVAC design, installation, modification and service
- Drag chain replacement
- Fire fighting systems and pumpskids

Electrical

- Telecommunication installation
- UPS and emergency power generation
- Automation and control systems
- Tank level monitoring systems
- Light, heat tracing, water tight door and fire damper indicator installation
- Thermography inspections, breaker tests, battery tests
- Switchboard installation (LV and HV) and service
- EX Maintenance

Accommodation

- Complete or partial upgrades and refurbishment
- Accommodation module design, engineering, prefabrication and installation
- Design and supply of furniture
- Galley, mess room, freezer design and supply
- Piping system replacements



Onshore

Shipyard in a box



Success of shipyard in a box concept is ensured by 5 key elements:



Define location

We find a suitable quayside and we arrange everything from facilities and marine services to logistics and coordination with port authorities.



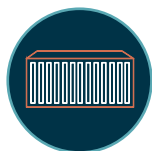
Project planning

We assist in creating and aligning the project plan with our client in order to ensure the most efficient project execution, which satisfies the schedules and goals set for the project. We offer complete front end engineering and planning package for all sizes of projects.



Project management

We select the most fit project management team for specific project requirements. Our experienced project managers ensure smooth project execution, reporting and communication with client.



The boxes

The boxes are basically containers, which has been outfitted to contain necessary equipment and tools or even various facilities, which is often required during yard stays.



The resources

We utilize Semco Maritime multi-discipline in-house resources or personnel of key partners. We utilize local labour whenever possible, to ensure cost efficiency and the possibility to mobilize additional local manpower with a short notice.

Define location

Yard Services

When Semco Maritime receives an inquiry for a rig upgrade, we will localize a suitable yard, which fits the client's requirements for capacity and geographical localization, and use the yard as our nominated contractor. Through our extensive experience within rig upgrades, we have built a vast expertise within yard requirements during rig projects and SPS's.

Since the requirements are not always fulfilled on the yards, we will supplement the yard facilities by utilizing Semco Maritime's mobile containerized facilities and ensure that all the clients' yard requirements are fulfilled. These services includes, but is not limited to:

- Electrical Power
- Water
- Firewater
- Drainages
- Sewage
- Environmental Approvals
- Arrangement of Tugs
- Quaysides
- Mooring Plans
- Workshops
- Offices
- Indoor- and Outdoor Storage
- Accommodation and Catering
- Cranes
- Fork Lifts
- Yard Services
- Floating Booms
- Painting
- Cherry pickers
- Parking
- Pilots



HSE and yard security

Safety is the key factor of every project. In Semco Maritime we insist on adhering to globally approved standards in health, safety and environment. Our staff receive regular training in the latest health and safety tools and procedures. Besides that, we help our customers minimise the environmental impact of their projects and operations. We ensure that all our processes and projects meet the highest international standards.

High security during our yard operations is maintained through the following systems:

- The yard will be safely declared and certified as an international port terminal according to the ISPS requirements.
- Access to the rig will be through 24hr manned POB access control and electronic tally systems.

In order to minimize the risk of injuries during the project execution we have conducted a comprehensive HSE system, covering all applicable procedures, routines and systems during yard operations, and for each rig project we will conduct the following material in collaboration with the yard:

- Yard Emergency response flow charts
- Contact lists
- Bridging documents
- Emergency plans
- Safety plans





Project planning

In order to achieve a successful project and reduce the out-of-service period, we strive to make an extensive project schedule prior to the commencement of the rig project. This is normally achieved by sharing a neutral project planner with our client, who will assist in creating and aligning the project plan for both parties in order to ensure the most efficient project execution, which satisfies the schedules and goals of both parties.

We believe that an extensive planning program:

- Reduce our clients lost revenue, which occurs through project delays
- Reduce the unproductive time wasted in the execution phase
- Improves the timeliness of the amount of key-components and deliverables
- Captures the adjustments in the critical paths throughout the upgrade

Front end engineering and planning

Our front end engineering and planning team work through well-defined stage-gate processes closely with customers and suppliers to manage entire rig repair and upgrade projects. We offer complete upgrading from project inception, initial planning, pre-planning, detailed scope of work development, design and engineering to project execution, re-commissioning and post-project support.

When required by our clients we can manage the entire project lifecycle. At the same time, we offer a flexible solution where client can choose to involve us in selected stages of the front end engineering and planning process.

To facilitate the planning process we embed a planning team in our client's project or operations group. The pre-planning, scope of work definition and development can be used for tender by us or other contractors, we maintain an »open book« policy for full transparency.

The front end engineering and planning process is adjusted to every single project, based on client's requirements, organization and resources.





Project Management

The project team is the most vital part of the concept, since they represent the core business of Semco Maritime, namely; project planning, know-how and project management. We offer full turnkey project management services and take a flexible approach to each project. Our large, multi-disciplined team of project managers, project control specialists, engineers and skilled technicians ensure that each project runs safely and efficiently, and that downtime is kept to a minimum. This approach, combined with our commitment to quality, enables us to service, refurbish or upgrade your rig and get it back into service as quickly as possible. Depending on the size of the project and the clients' needs, a customized project team will be proposed and presented, capable of executing the project within the agreed time-schedule and budget.

A project team can consist of, but is not limited to:

- Senior Project Managers
- Project Coordinators
- Cost Controllers
- HSE Managers
- QA Personnel
- Safety leaders

- Document Controllers
- Project Planners
- Camp Admins
- Travel Coordinators
- Project Purchasers
- Technical Support
- Construction Managers

- Discipline Leaders Drilling
- Discipline Leaders Accommodation
- Discipline Leaders Marine
- Discipline Leaders Structural
- Discipline Leaders Piping

- Discipline Leaders E&I
- Discipline Leaders Scaffolding
- Scaffolding Coordinators
- Logistic Coordinators
- Log yard foremen
- Yard Foremen

Depending on the size of the project and the requirements from the clients, these disciplines will be adapted to suit the specific project. Hence, the project team might consist of solely a project manager, an assistant project manager and a cost controller, or it might consist of the full package, as illustrated above.

The boxes

The boxes are containers, which has been outfitted to contain necessary tools and equipment for offshore projects or even various facilities, which is often required during yard stays. Semco Maritime extensive fleet of containers for use offshore or onshore includes:

- Workshop Containers (Electrical, Mechanical, etc.)
- Sub-supplier consolidated supplies
- Laundry Containers
- Changing Rooms
- Land-based Accommodation
- Kitchens
- Offices
- Various Stocks
- Toilets
- Meeting Rooms
- Induction Rooms
- Recreation Rooms
- Coffee Shops
- HSE Containers



The containers are selected based on the project requirements, for offshore projects storage, workshop and supply containers are used. At the same time, the boxes can supplement onshore projects in the yard with regards to facilities they might not have available on-site. Hence, utilizing from the facilities on the yard whenever possible is more beneficial for both parties, due to i.e. cost and accessibility. The only boxes that will always be brought along is the various stocks, which contains the most vital spare parts for the various trades working on the MODU during the upgrade.



Resources

The resources used on rig-upgrades are mainly multi-disciplined personnel with origin in Semco Maritime's worldwide organization, personnel from one of Semco Maritime's core suppliers hereof, or of local origin within the area of the upgrade. It is of Semco Maritime's interest to utilize local labour whenever possible, due to the cost efficiency and the possibility to mobilize additional local manpower with a short notice. However, this depends on the capability and capacity of the local area in which the upgrade is being performed. Semco Maritime's in-house personnel will always monitor and manage all the work scopes.

Semco Maritime's current available trades include:

- Welders
- Steel Workers
- Mech- and Pipe Fitters
- Plumbers
- Electricians
- Absailors/Rope Access
- Scaffolders
- Riggers
- Floor Layers
- Industrial Painters and Decorators
- Joiners and Carpenters
- Hole and Fire watch
- Storemen
- Logistics Personnel
- NDT Technicians
- Instrumental-, Electrical- and Valve Technicians
- Ex Technicians

Further, all above trades are available as foremen and supervisors.



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Semco Maritime as a turn-key contractor

By utilizing Semco Maritime rather than the yard directly we will ensure that the out-of-service period is minimized, since we do not have any interest in keeping the rig at the quay-side for as long as possible to provide additional yard services.

Semco Maritime already has an extensive network of frame agreements with yards in Denmark, Norway, UK and Vietnam, but we are able to operate in all locations worldwide.

Furthermore, our shipyard-in-a-box offshore concept allows us to perform projects offshore, ensuring minimum downtime for the rig during modifications and upgrades.