
EXMAR
OFFSHORE
TRACTOR TUG
SIGNET ENTERPRISE
INGLESIDE TX

EXMAR OFFSHORE

Engineering

Drafting & Design

Regulatory Interface

Project & Construction Management

Marine Operations Services

Corporate Overview

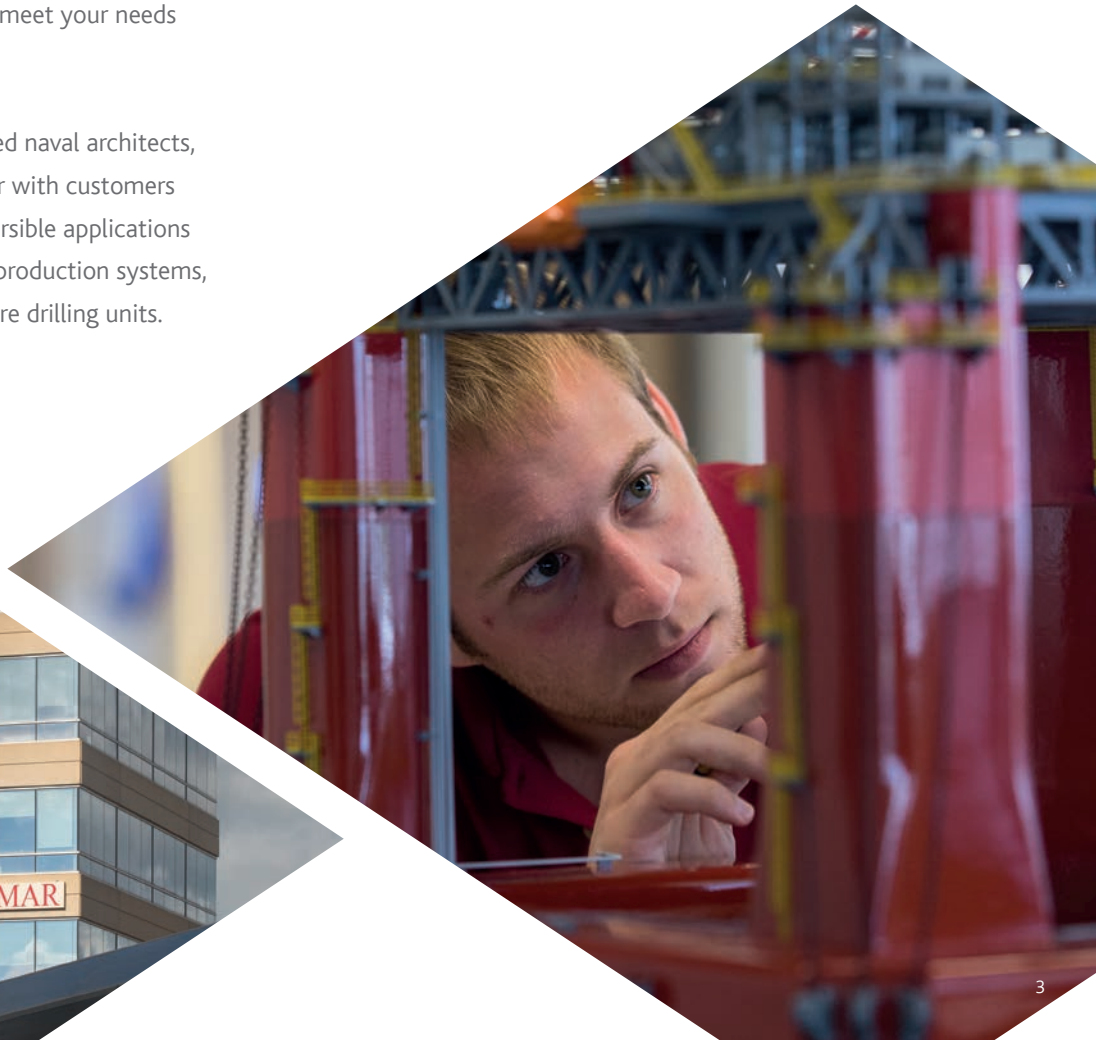
EXMAR Offshore is dedicated to the ownership and leasing of offshore assets and providing floating solutions to the production, drilling, and accommodations market. US-based **EXMAR Offshore Company (EOC)** is an engineering company specializing in the development of basic and detailed designs as well as engineering services related to marine vessels, ships, and offshore units. **EXMAR Offshore Oil and Gas Infrastructure Services (OGIS)** division operates a variety of offshore assets for both the EXMAR Group and external client owners.

EOC provides a wide range of services to the marine oil and gas industry. Expertise in engineering, project and construction management, and operation of offshore facilities means that our people can meet your needs throughout all phases of a project.

EOC has a team of highly experienced naval architects, engineers, and designers who partner with customers to design mono-hull and semisubmersible applications for offshore service vessels, floating production systems, accommodations, and mobile offshore drilling units.

With dedicated teams cooperating with its clients, EOC can develop detailed engineering and design packages for your project from concept through delivery, including drawings, shipyard construction specifications, and regulatory approval.

EXMAR OGIS services are highly experienced in shipyard supervision during construction, commissioning, and delivery as well as the day-to-day operation of ships, offshore service vessels, floating production systems, floating liquefaction, regasification, and storage units.



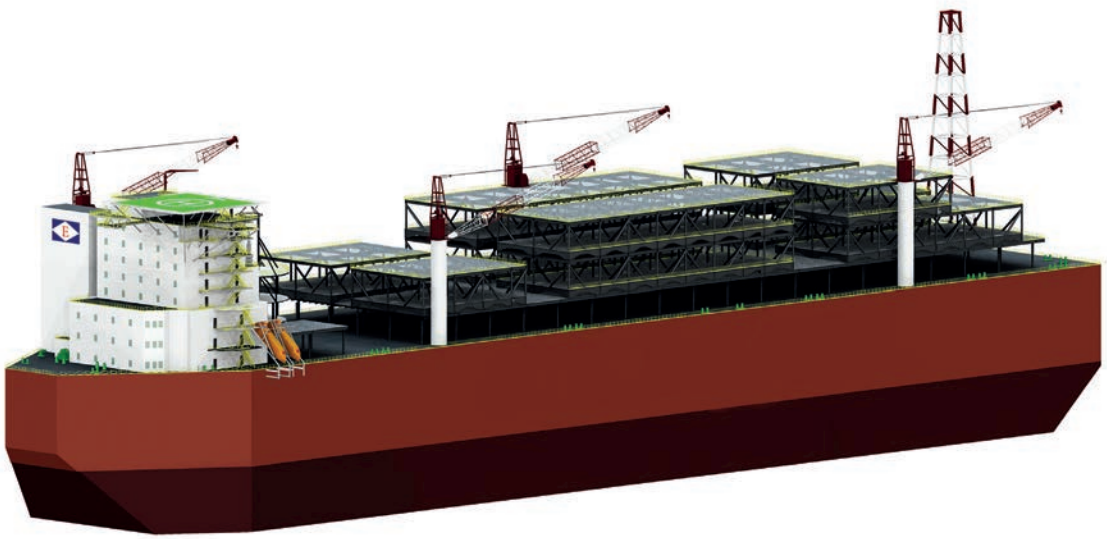
Floating Production System and FPSO Designs

With the increasing demand for re-deployable, fast-lead-time-to-production units, EXMAR's OPTI® series of semisubmersible platforms have been designed as an optimized and scalable solution for floating production systems (FPS).

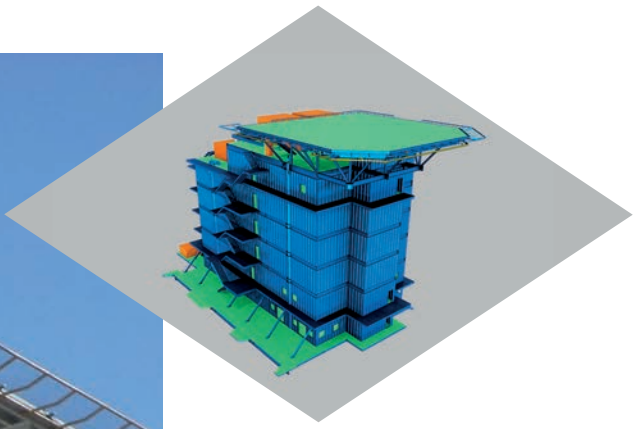
OPTI-EX® with 6,000 metric tonnes of payload was successfully deployed in the Gulf of Mexico in 2011, with its much larger successor the OPTI 11,000® hull (11,000 metric tonnes) also delivered to the satisfaction of the same client for Delta House in 2014. In-house designs are also under development for 16,000 and 22,000 metric tonne units. The OPTI® series is fully scalable to meet specific load requirements.

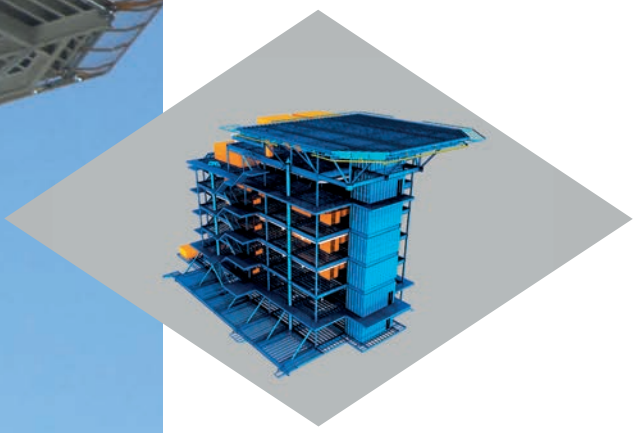
Features of the design include unique 5-sided columns connected to a ring-pontoon which provide superior motion characteristics, reduced steel weights, and allow for the use of EXMAR's FAST™ (fully-aligned stress joint trimming) riser pull-in method. This permits the safe, reliable and highly efficient installation of production and export risers, which significantly reduces overalls cost and lead time for FPS deployment in the world's harshest deep water environments.

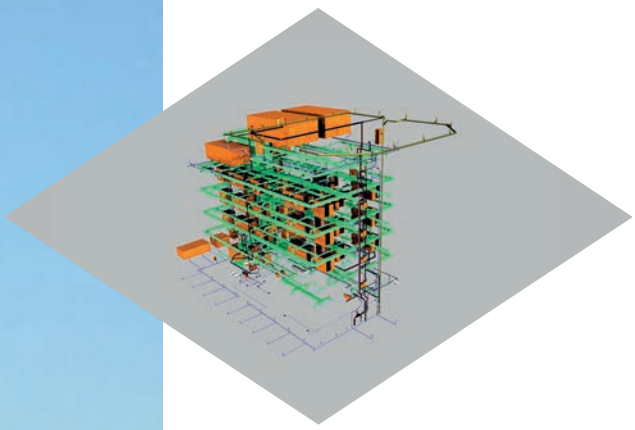
EXMAR Offshore has also designed, built, installed, and operated the floating production, storage, and offloading (FPSO) unit Farwah with 900,000 bbl storage capacity. The vessel, which was commissioned by TOTAL in 2003, has since been operated by EXMAR OGIS in the Mediterranean off the North African coast.




HARDING







Offshore Accommodation Designs

Since the beginning of the new millennium, EXMAR Offshore has specialised in the design, construction, commissioning, crewing, and maintenance of offshore accommodation barges to specifically serve the challenging, emerging offshore market off the Gulf of Guinea and the Atlantic coastal fields of Western Africa.

EXMAR OGIS operates, crews, refurbishes, and maintains a number of accommodation barges off the shores of West Africa for international and national oil companies. These units have been deployed in Africa's main oil exploration fields in the Gulf of Guinea and, in particular, off the shores of the Angolan coast.

As a recognised specialist and reliable partner in this market, EOC was contracted to design a 6-level living quarters with a helideck to accommodate 148 personnel for a field project for an oil major working on behalf of a major consortium in Angola. The scope of work included engineering and design of the accommodations and helideck and integration of the following systems: structural, piping, HVAC and ventilation, and electrical conduit (lighting, power, instrumentation, and controls). For all systems completed by EOC and other contractors, our team was responsible for the 3-D composite model completed in AVEVA Marine software, performing clash/system interference checks, and providing detailed bill of materials complete with weight estimates.

FEED-Level Designs For Floating Liquefaction Units (FLNGs)

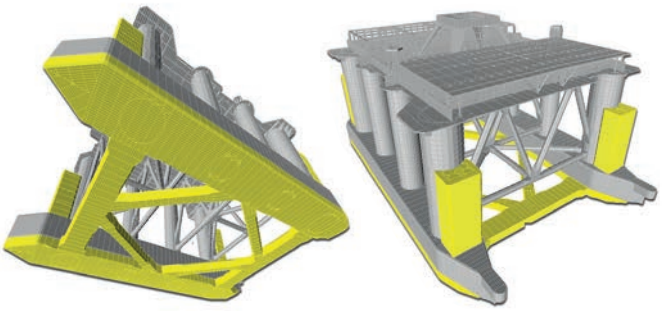
EXMAR Offshore, in conjunction with EXMAR's LNG Infrastructure division, commenced development of floating natural gas liquefaction (FLNG) solutions in 2008, with the former developing a FEED-level design for the integration of topsides liquefaction process. Structural analysis, material handling, module layout, equipment, and pipe clashing were completed for five separate modules: liquefaction, dehydration, refrigeration, boil off gas, and gas pre-treatment.

While oil companies are generally interested in oil and gas fields with large potential, stranded gas in smaller pockets and small-sized developments remain untapped. EXMAR's innovative developments in the fields of ship-to-ship transfer and floating regasification and liquefaction create the necessary flexibility that will further enhance the feasibility of stranded gas exploration in the future.

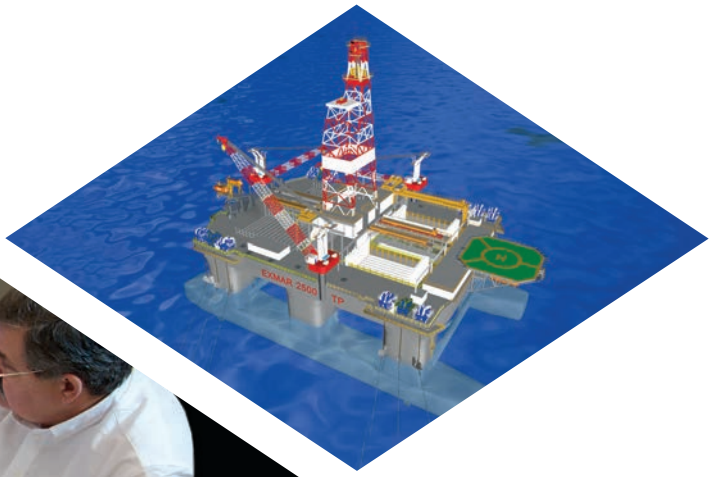
In 2014, EXMAR completed construction of its first floating liquefaction barge at the Wison shipyard in Nantong, the barge was launched on the 19th of November 2014 for final outfitting and completion of pre-commissioning activities. The commissioning of the 16,100 cubic meter unit will start in the second half of 2015 in the People's Republic of China and will be crewed and operated by EXMAR OGIS. EXMAR has ordered a second, larger unit of 20,000 cubic meter capacity for delivery in 2017 anticipating the demand for a more cost-competitive LNG production facility compared to onshore terminals that will allow faster monetization of gas reserves.

Designs and Upgrades of MODUs, MOPUs, and Drill Ships

EXMAR Offshore emerged in the early nineties as owners and operators of a large drilling fleet as well as building its first DP-3 drilling semisubmersible. Today, EXMAR Offshore still holds intellectual property rights to four MODU designs and one drill ship design, including a recently designed harsh-environment semisubmersible.



EOC has executed a number of client projects in recent years. This includes upgrading a semisubmersible multi-support and well intervention vessel, 3,500 foot and 5,000 foot depth upgrades for two rigs as well as performing a detailed reliability upgrade to a drill ship. The latter project entailed a vessel survey with evaluation of and extensive modifications to the client-provided design following fatigue-and global-strength analyses. EXMAR Offshore also provided a demolition plan for removals, vessel general arrangement drawings, and structural scantlings for a new stern module, port and starboard sponsons housing, new azimuthing thrusters, and associated equipment. It also provided a plan to reinforce the main deck accommodations module, bow helideck, and deck crane, and supervised extensive electrical and mechanical system modifications.



We work with our clients and partners to supply customized solutions in engineering, design, fabrication, and operations. Our assets are the result of designing solutions that we build, own, and operate. In all our activities, we seek to improve performance and increase efficiency for our customers. Our clients work with us because we don't consider any job routine. Whether it's consulting, design, construction supervision, or operations, our success is defined by the way in which we handle challenges, and the greatest challenge is doing all these things successfully in a way that can be objectively appreciated. We don't move the goal posts to define success. Innovative design and infrastructure combined with services from concept to reality; this is what characterizes the spirit of EXMAR Offshore.

David Lim, Managing Director, EXMAR Offshore Company

If you would like to know more about how EXMAR Offshore can assist you with your project, contact:
Jay Cotaya, CCO, EXMAR Offshore Company

EXMAR Offshore Company Headquarters
3700 West Sam Houston Parkway South, Suite 300; Houston, Texas 77042 U.S.A.
marketing@exmaroffshore.com www.exmaroffshore.com
Office: +1 (281) 679-3900 Fax: +1 (281) 497-3370

When innovation
meets partnership
good becomes great

At EXMAR Offshore we are driven by innovation. However, we also depend on trusted partnerships to help turn our ideas into reality. The kind of partnership that resulted in the OPTI® Floating Production System. Working in close cooperation with our technology partners and clients, EXMAR Offshore developed and engineered this innovative, flexible, cost-effective production solution. Two OPTI® Floating Production Systems have been successfully installed in the Gulf of Mexico, the OPTI-EX® and Delta House in 2011 and 2014.

EXMAR Offshore's commitment to innovation through partnership has resulted in a proven low cost, high-efficiency, flexible production system to meet your needs.

EXMAR OFFSHORE

www.exmaroffshore.com