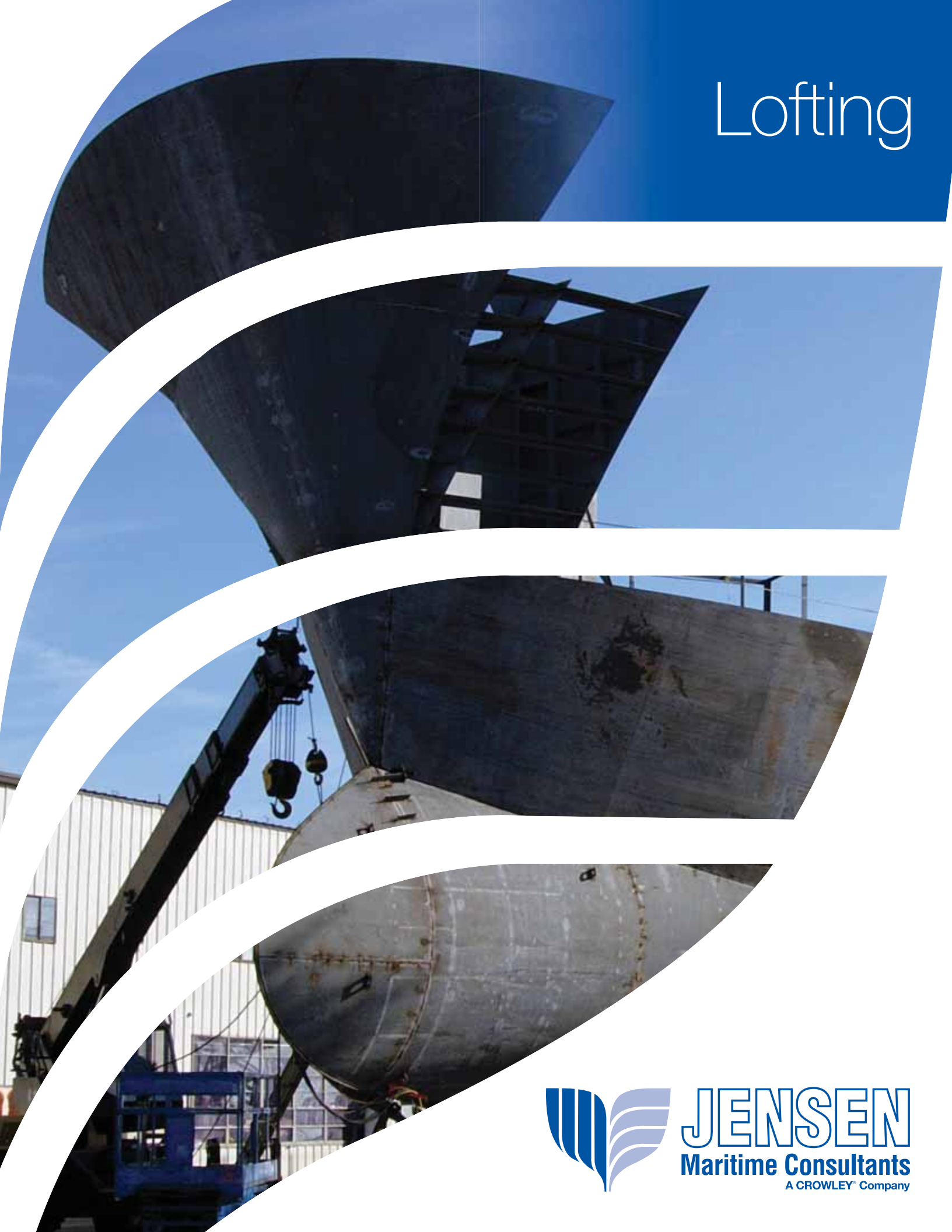


# Lofting



**JENSEN**  
Maritime Consultants  
A CROWLEY® Company



# Jensen Maritime Consultants

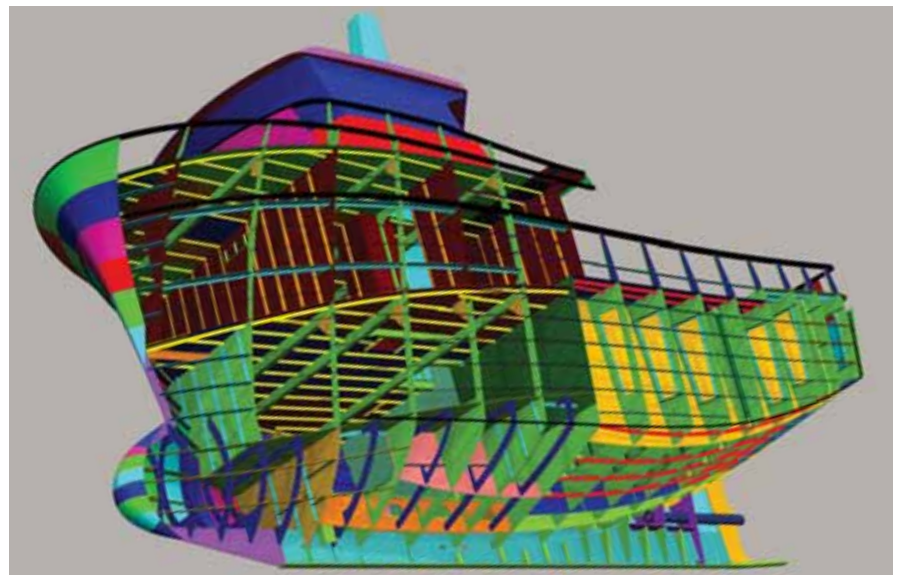
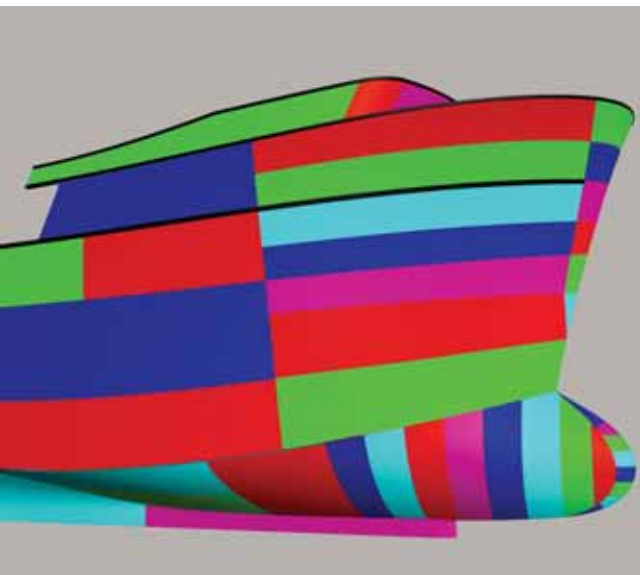
A Worldwide Leader in Production  
Lofting and Detailed Design Services  
Committed to Excellent Performance

- Harbor Tugs
- Ship Escort Tugs
- Line Haul Tugs
- Hybrid Tugs
- Push Tugs
- Anchor Handling Tugs
- Container/Cargo Ships
- Offshore Supply Vessels
- Dredges
- Fireboats
- Crane Barges
- Work Platforms
- Oil Barges
- Deck Barges

*Our services allow both owners and shipyards to meet demanding schedule requirements while reducing the cost of the design and manufacturing process.*

As a full service naval architecture firm, we work directly with each shipyard and customer to create an end product that suits their special production requirements. Our goal is to optimize building productivity and quality through the lofting process, which essentially takes a vessel design and creates a building kit for the shipyard including directions for the cutting machines and assembly drawings. We are pleased to provide these services to our clients for Jensen designs as well as those done by other naval architects.

During the first step (fairing), the hull lines are reviewed and modified as necessary to ensure the hull plating can be folded and rolled to the proper shape. Next, we translate all the structural drawings into parts. Using a computer program, those structural drawings are made into a 3-D virtual model. Once the 3-D model is made and the shipyard decides on a build strategy, we break the 3-D model into modules. The parts are then “nested” or placed onto standard plate sizes to minimize waste when they are cut out. These computer generated cutting tapes direct the burning machines to cut out the right parts.

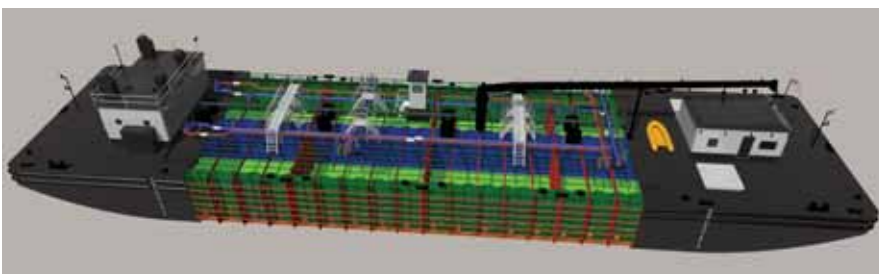
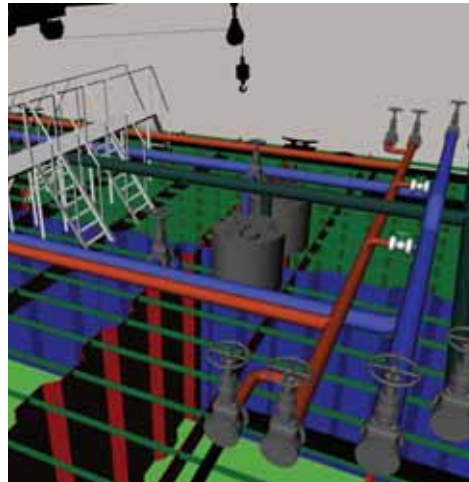




Jensen can develop a 3-D model of the vessel that can be used for both production lofting and visualization of the end product. This method of 3-D modeling is also a great tool for identifying interferences and areas in the design that might require special attention during the construction process. At Jensen, we strive to support our clients from start to finish. This latest addition of production lofting services is an example of our continued commitment to partner with our clients during all phases of design.

Jensen customers also benefit from our association with Crowley, the largest, privately held U.S. maritime company. Crowley gives Jensen unmatched knowledge of the workboat industry as well as access to the resources and backing of one of the most respected names in the maritime industry.

Please contact Jensen Maritime Consultants today, at (206) 284-1274, to see how we provide the highest quality, most efficient and most innovative maritime design services anywhere in the world.



We are full service from preliminary concept through as-built phases:

- Preliminary Design
- Contract Design
- Detailed Design
- Retrofit / As-Built
- Refurb / Repower

### Lofting and Production Engineering Services

- Structural Modeling
- Production Documentation Drawings
- Shape and Plate Nesting
- Computer Lofting
- Piping Design and Penetrations (Pipe Spools)
- Numerical Control (NC) Tape Production
- Accurate Assembly, Module, and Vessel Weight & C.G.
- Modular Construction Planning
- Production of 2-D & 3-D Drawings
- New Design
- Sponsons
- Lengthening
- Pilot Houses/Deckhouses

### 3-D Softwares Available

- ShipConstructor®
- 3-D AutoCAD®
- Rhinoceros®
- MultiSurf®

1102 S.W. Massachusetts St.  
Seattle, WA 98134  
Phone (206) 284-1274  
Fax (206) 284-2556  
E-mail: [mail@jensenmaritime.com](mailto:mail@jensenmaritime.com)  
**[www.jensenmaritime.com](http://www.jensenmaritime.com)**