

## Winch Lines

High Modulus synthetic ropes have proven to increase safety and reliability while significantly reducing operating costs.

Traditional marine engineering holds that wire rope is the preferred line for use on winches. Unfortunately, these very heavy strength members greatly increase handling efforts and safety problems. Working at ultra-deep depths with steel wire rope places even greater challenges on deck loads, deck space, and increases the size and power requirements for the winch itself. All offshore vessels and existing winches outfitted with wire rope see reduced capacity at depth, as the weight of wire has to be accounted for and lifted in addition to any package being handled.

High performance synthetic ropes offer comparable strengths, diameter-for-diameter, when compared to wire rope, but they weigh in at a fraction of wire rope above the water's surface. In most cases synthetic ropes are neutrally buoyant. At 1/7th the weight of traditional wire ropes, a high performance synthetic line can greatly increase a winch's lifting capacity, and when considering deep-water operations, the weight of the synthetic rope can be a non-influencing factor when calculating winch capacities at depth. Imagine an existing 500Te winch being able to lift 500Te at 10,000' depth; this is unheard of with a winch outfitted with wire rope, but is a reality with a winch outfitted with high performance synthetic rope. Or, if you were attempting to design a new system imagine being able to reduce the footprint and weight of your winch along with the ancillary components like horizontal and turn down sheaves; it would reduce your engineering time and material costs while freeing up valuable real estate onboard.

When you partner with SWOS you won't just receive a product; you'll receive our commitment to provide a solution that is given full attention from FEED to Field via our industry leading Technical Sales, Project Management and Field Service teams.

### Wire Rope Replacement

SWOS provides multiple synthetic rope technologies that are drop-in replacements for wire rope and are tailored to meet the operational challenges of each application. Our technical team is always ready to work with you to determine an optimal solution that will provide a streamlined tension member that will outlast wire rope while eliminating the maintenance challenges and operating risks associated with wire rope. Synthetic ropes do not require lubrication, will not bird-nest or over-spool. Synthetic lines decrease risks to personnel because they are lightweight, and they naturally reduce recoil.

### Wire Rope Replacement Solutions:

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New System Design with Heave Compensation

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Mobilizing an Existing Winch

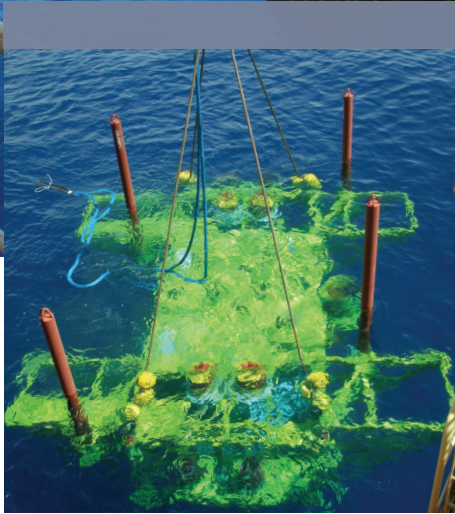
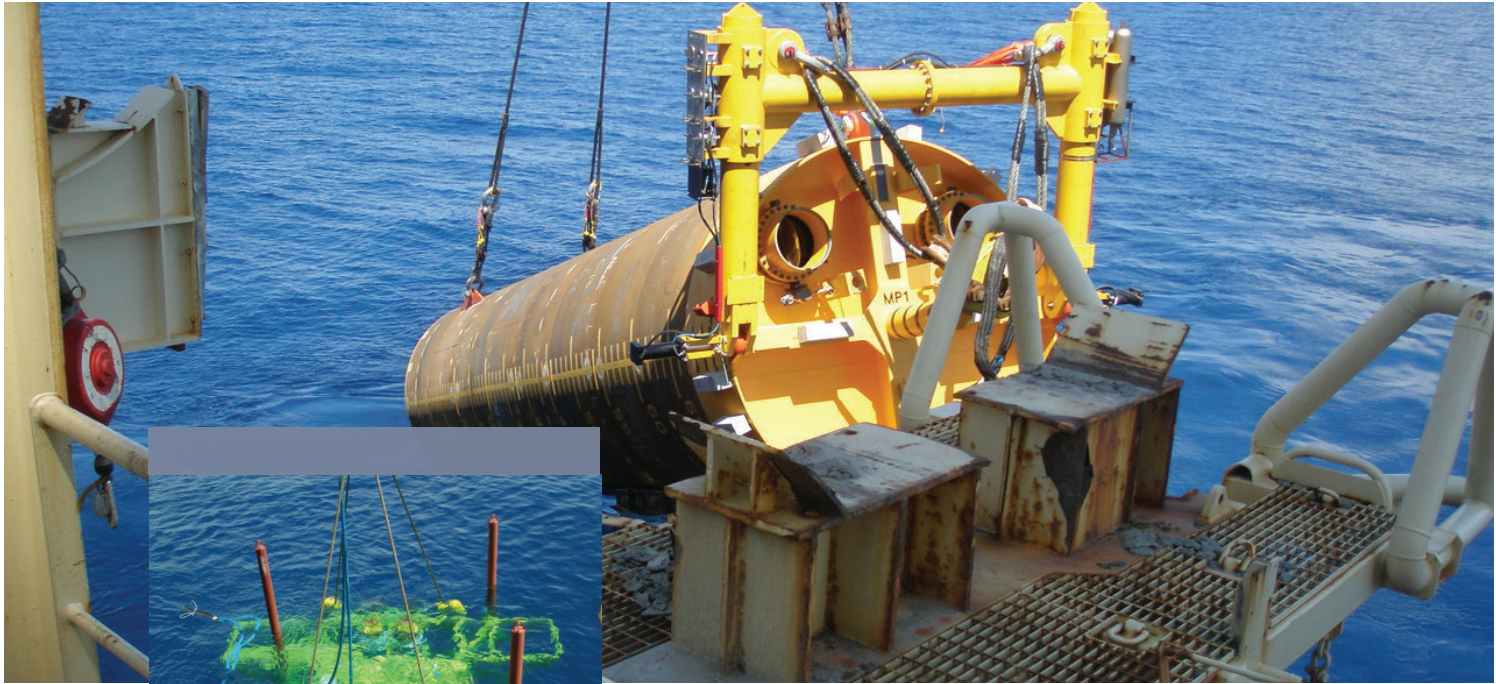
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Deck Tugger Conversion

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Traction System Conversion





#### Track Record of Success

With a track record of success in subsea applications, SWOS industry experts will not only assist with design and supply on the front end, but we can also lend a hand in formulating handoff procedures to ensure your packages are lowered safely and efficiently, as well as providing any desired support in the field.

## Subsea Transfer

When transferring structures, umbilicals, manifolds, and other packages subsea, SWOS designs lightweight rigging systems to ensure smoother installations.

Whether you are looking to hand off between winches, between cranes, or between vessels, these operations can become highly complicated, requiring vast amounts of rigging. Synthetics can streamline and simplify these operations. SWOS can assist with designing an ROV friendly rigging scheme which is buoyant, or sinkable. These synthetic solutions are highly visible subsea, allowing for a more efficient operation and cost savings. The SWOS Technical Team can work with your installation group and provide synthetic solutions making the seemingly impossible, possible.