



SWOS implements patented technology that permanently increases the coefficient of friction of these ropes so that they grip much better on bitts, and provides a much longer lasting product in this rigorous application.

High grip fibers are actually permanently incorporated into the slicker HMPE fibers in order to change their surface characteristics. It's important to do this on the fiber level as opposed to doing it through coatings; coatings can increase the coefficient of friction when applied to fibers, but they actually wear off the surface over time and leave you with an untreated rope that is back to slipping on your bitts and degrading quickly. Permanent fiber manipulation ensures that you maintain a high level of grip through the life of the line.

Conventional Tug

Through patented technology, SWOS designs rope with increased coefficient of friction and optimal grip for compatibility with steel objects in conventional tug operations.

Conventional tugs are typically viewed as those that do not make use of bow winches for ship assist operations, and are connected to the assets they have been hired to maneuver by making ropes fast on fixed hardware like H-bitts.

High performance ropes that have been tailored to this application can greatly increase safety due to the lightweight and ease of handling, and reduce operating costs as a result of their extended service life when compared to traditional polyester, polypropylene and nylon working lines. High performance ropes are naturally cut and abrasion resistant and are not prone to water absorption, which allows them to maintain their light weight when dry or wet.

One of the challenges when implementing high performance fiber ropes on stationary hardware is that the amount of tension they are able to hold is directly related to the amount of grip that can be achieved. Due to the inherent slickness of high performance fibers they are not naturally a candidate for this type of application and have been susceptible to very short service lives. Abrasion and melting due to high heat from slippage on bitts is the main factor in the degradation of traditional high performance offerings when made fast to stationary objects.

Inland

Marine transportation companies are now choosing SWOS' high performance HMPE fiber facing lines over wire rope for many reasons.

In contrast to wire rope, these lightweight, flexible lines have proven to eliminate injuries, reduce makeup and knockdown time, and reduce the number of deckhands required for rigging operations. With the SWOS service life extension program, customers have witnessed increased efficiency and reduced operating costs by using SWOS synthetic solutions.

When companies consolidate their fleet consumption to SWOS, the long term savings are beneficial. Through our asset management program we pro-actively monitor your fleet and do the legwork to decrease consumption rates and ensure you get the service life you deserve, and the return on investment you expect. Your Port Captains will have more time to focus on other items knowing we are working behind the scenes to create quantifiable, tangible increases in rope life and reductions in your operating costs.

Technologies



In addition to the finished product and management system, we employ a training program to ensure everyone coming in contact with the ropes are well versed in proper handling, inspection and care.

The human element plays a large role in overall service life and we emphasize the importance of this by providing training through all levels of your organization.

Our rope offerings for the Inland industry are not limited to HMPE face and wing lines, we also provide general purpose deck lines, lashing lines, barge winch lines and rigging hardware.