



CompoTech

Carbon Composite Components

CompoTech Telescopic Technology COMPOLIFT

Light Weight Telescopic Marine Mast

Developed for inflated Wing Sail (IWS) technology. The inflated wing sail design requires the telescopic mast to be operational under load to reduce the sail area to from 100m² to 60m². The mast itself consists of seven concentric tubes, weighing approximately 200kgs. These sections telescope from 4.5m to a height of 21m using a winch system with an external block and rope.

This proof of concept is used in conjunction with Michel Desjoyaux, world-renowned skipper and ambassador of the Michelin backed WISAMO Wind ship project. The scaled-down design is for a 100m² sail test yacht.



Innovation

| Structure
| Composite
| Process



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Telescopic Mobile Surveillance

The adapted telescopic technology is also used for land-based applications such as police mobile surveillance. Mobile van units use the mast to deploy 16kg of visual and acoustic equipment to 7m using five sections. The total mast weight is 64kg.



Carbon Fibre Mobile Crane Demonstrator

This design uses CompoTech's automated axial carbon fibre placement technology to manufacture the tapered carbon mast tube and octagonal telescopic boom sections of the crane. The elastic Modulus of these parts is 327 GPa. 60% better than steel, whilst the weight is about 50% less than a steel crane of similar lifting ability.



Joints and connection points are made using CompoTech's Integrated Loop Technology (ILT) enabling stronger and more reliable joints made with the process of making the component.

Applications can be military & commercial vehicles, marine workboats and platforms.

