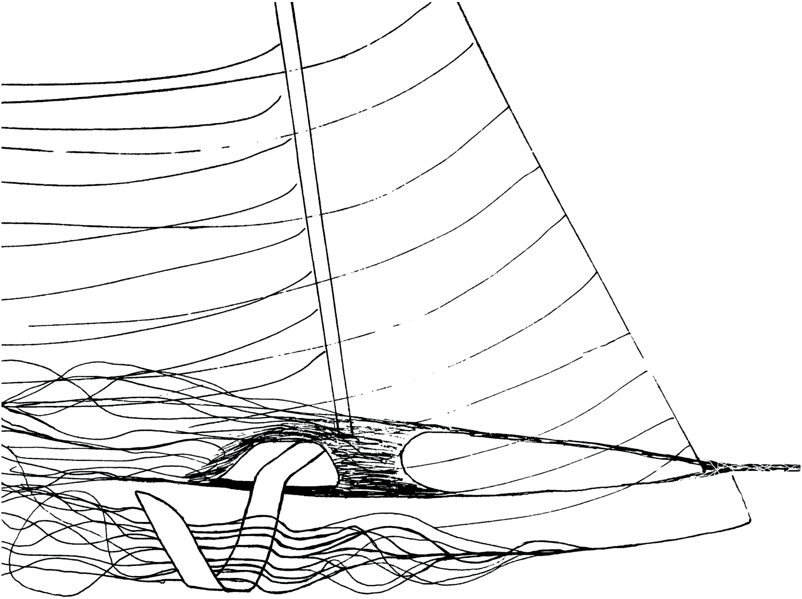
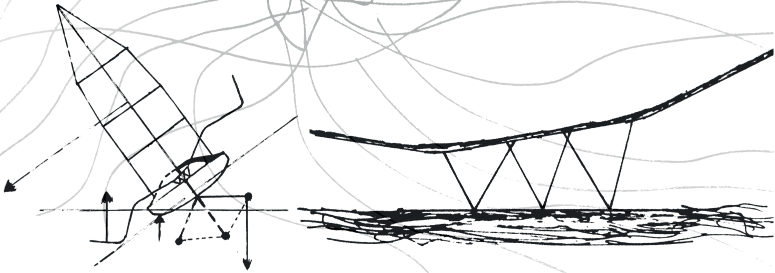


GSP Foil System

Various high performance racing yachts utilize lifting foils that can be controlled either in one degree of freedom or in no way whatsoever.
High performance monohull sailing has literally risen to a new level with the introduction of various

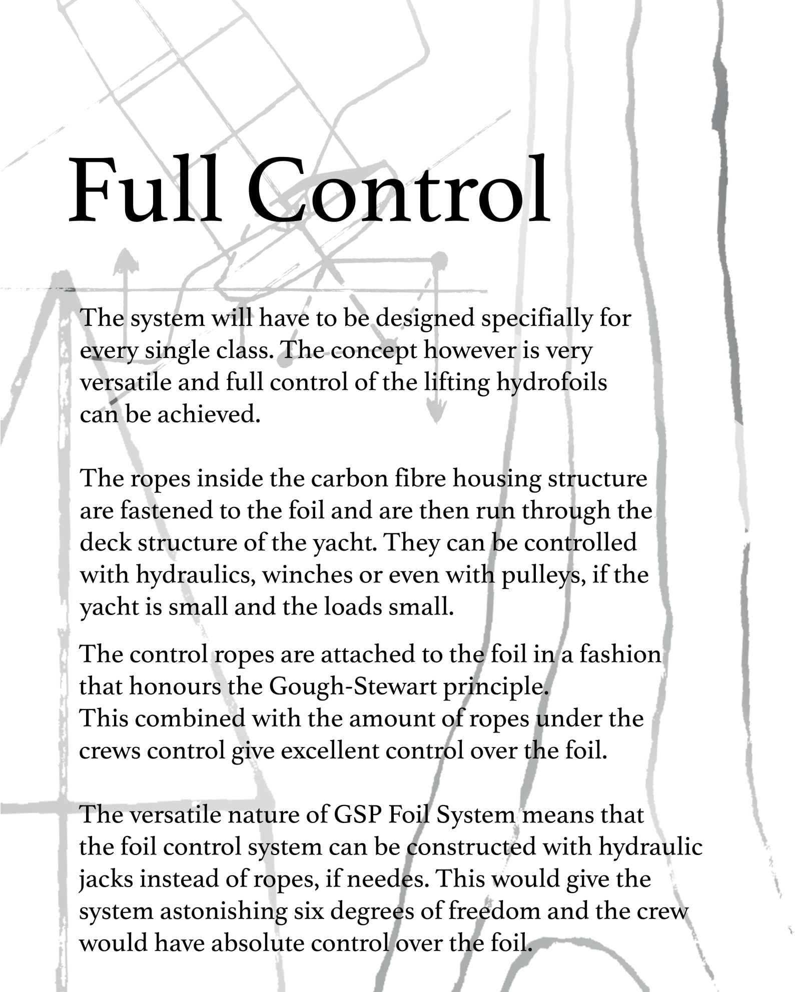
lifting hydrofoil systems.

The Gough-Stewart principle Foil System enables the yacht to optimize the performance of its lifting foils in various conditions.



The system is configured of single large foil with lifting hydrofoils on both ends and the control system.
The foil is attached to the boat and controlled by seven dyneema-core ropes. The rope system acts as the core of the foil control system and the carbon fibre structure around it protects the system and can be made to support a deck-stepped mast.

With the rope based system giving unseen control over the foil, the performance of the whole yacht can be optimized.
The lightweight carbon fibre structure paired with the lightweight control system open a new chapter on hydrofoil control without adding any unnecessary weight.



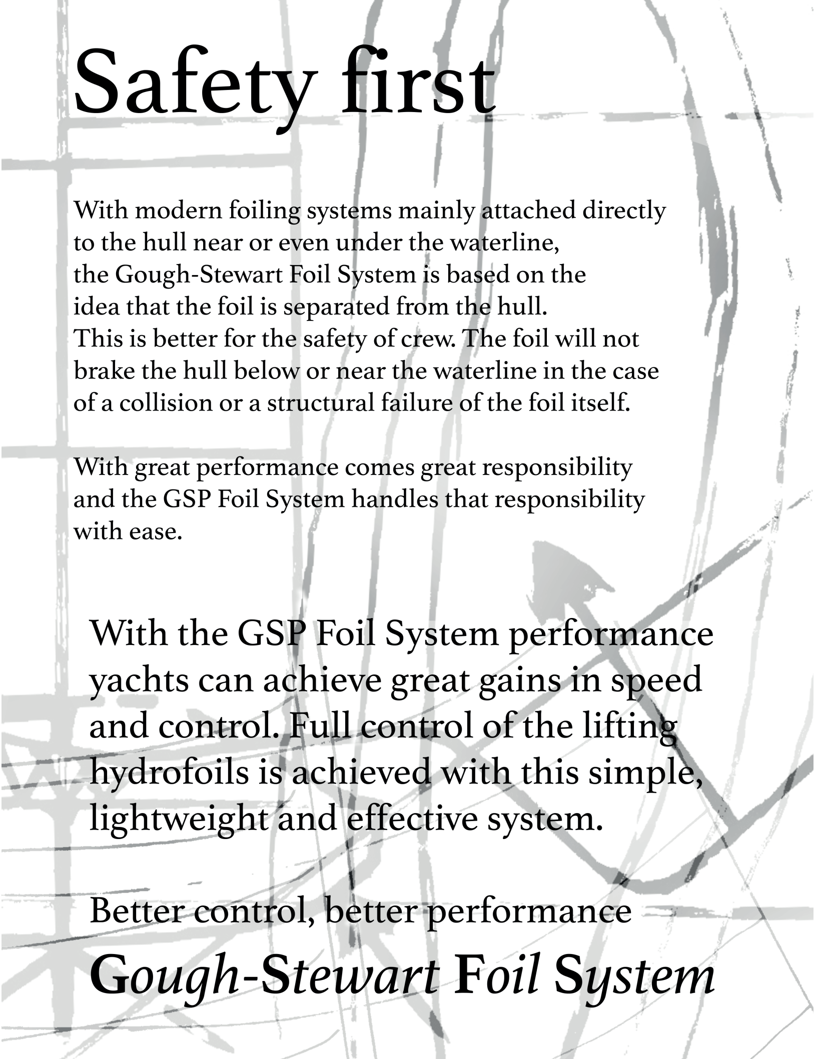
Full Control

The system will have to be designed specifially for every single class. The concept however is very versatile and full control of the lifting hydrofoils can be achieved.

The ropes inside the carbon fibre housing structure are fastened to the foil and are then run through the deck structure of the yacht. They can be controlled with hydraulics, winches or even with pulleys, if the yacht is small and the loads small.

The control ropes are attached to the foil in a fashion that honours the Gough-Stewart principle.
This combined with the amount of ropes under the crews control give excellent control over the foil.

The versatile nature of GSP Foil System means that the foil control system can be constructed with hydraulic jacks instead of ropes, if needes. This would give the system astonishing six degrees of freedom and the crew would have absolute control over the foil.



Safety first

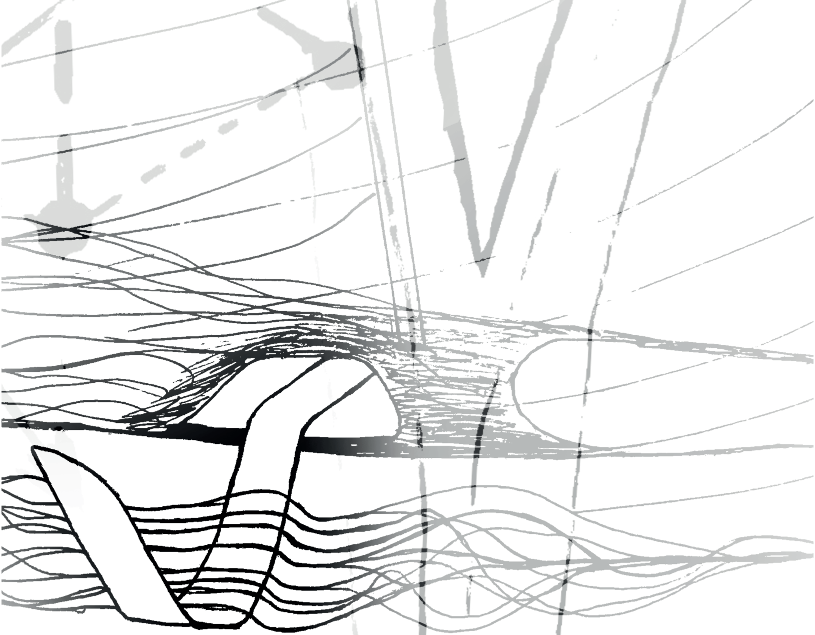
With modern foiling systems mainly attached directly to the hull near or even under the waterline, the Gough-Stewart Foil System is based on the idea that the foil is separated from the hull. This is better for the safety of crew. The foil will not brake the hull below or near the waterline in the case of a collision or a structural failure of the foil itself.

With great performance comes great responsibility and the GSP Foil System handles that responsibility with ease.

With the GSP Foil System performance yachts can achieve great gains in speed and control. Full control of the lifting hydrofoils is achieved with this simple, lightweight and effective system.

Better control, better performance

G*ough-Stewart* F*oil* S*ystem*



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