

eSAIL®

SUCTION SAILS FOR SHIP PROPULSION

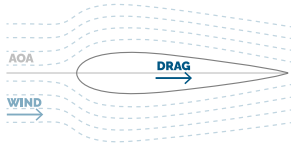


**INCREASE PROFITS,
DRIVE DECARBONIZATION
AND COMPLY WITH REGULATIONS**

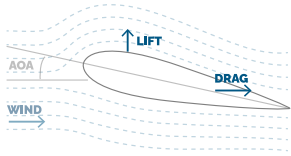
bound4blue

HOW OUR SUCTION SAILS WORK?

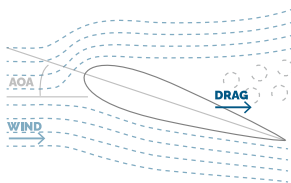
AERODYNAMIC SYSTEM



The lift generated by an aerodynamic body is proportional to the angle of attack, which is the angle between the sail and the wind.

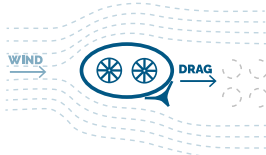


A higher angle of attack increases lift...

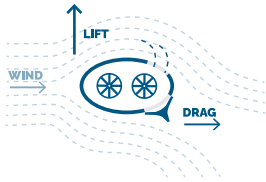


... until the air flow detaches causing a sudden loss of lift.

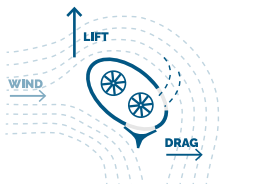
eSAIL®



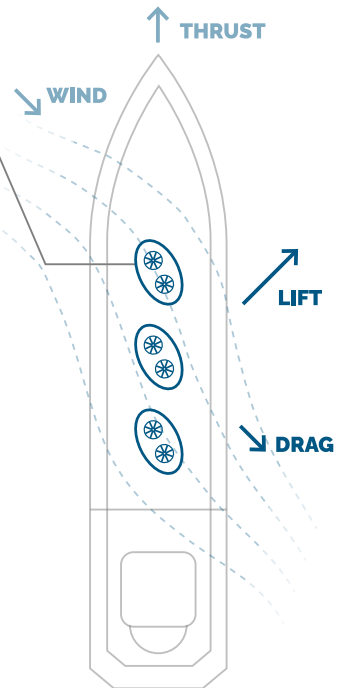
The eSAIL® features a thicker profile which, if nothing is done (suction off) is fully detached and produces no lift.



Adding suction at key points ensures that the airflow remains attached to the sail to generate high lift.



This allows the eSAIL® to generate lift six to seven times higher than a wing sail.



↓ FUEL CONSUMPTION



↓ EMISSIONS



SCAN HERE
VIDEO - HOW SUCTION
SAILS WORK?

For the same sail area, a higher lift value translates to higher forward thrust. Allowing for further reduction in engine power and pollutant emissions, while increasing fuel savings.

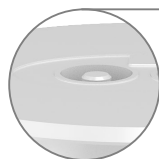
eSAIL®

MAIN PARTS



SUCTION FAN

Variable Frequency Drive (VFD) electrical axial fan to control suction.



AUTOMATIC CONTROL SYSTEM

The main cabinet is located inside the eSAIL® body and contains the main equipment of control system, which is fully automated.

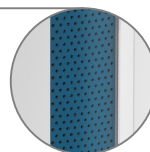
FLANGE DECK CONNECTION

Standard bolted flange connection to vessel deck.



SUCTION AREA

Area specifically designed to avoid flow stall, ensuring high-performance aerodynamics.



FLAP

Variable asymmetry of the eSAIL® shape, maximising aerodynamic performances.



ORIENTATION SYSTEM

Slew-bearing and electric motor to adapt eSAIL® orientation to any prevailing wind direction.

PORTFOLIO & TECHNICAL SPECIFICATIONS

		MODEL 2	MODEL 3
	Width	4.5 m	6 m
	Various heights	18, 22, 26 m	24, 36 m
	Example vessels	General Cargo, Feeder, Handysize, MR, Ferry, Ro-Ro	LR, Aframax, Suezmax, Panamax, Capesize, VLCC/OC, LNGC
		+ Add on: ATEX – Titling System Thanks to the innovative eSAIL® design, most tankers/gas carriers do not require ATEX certification, significantly reducing both cost and system complexity	

KEY BENEFITS



**REDUCED FUEL USAGE
AND EMISSIONS**



**THIRD-PARTY VALIDATED
AS MOST COST-COMPETITIVE**



**COMPLIANCE WITH
MARITIME REGULATIONS**



**APPROVED AND CERTIFIED BY
CLASSIFICATION SOCIETIES**



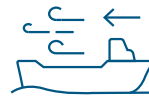
**FLEXIBLE INVESTMENT
& LEASING OPTIONS
READY UNDER DEMAND**



**FREE AND UNLIMITED
ENERGY SOURCE**



**THIRD PARTY
VALIDATED SAVINGS**



**EXCELLENT CAPACITY
TO SAIL UPWIND**



**HIGH RELIABILITY &
REDUCED SAIL MOVEMENT**

SUITED FOR...

1 NEWBUILDS & RETROFITS

It is suitable for either newbuilds or retrofitting across a diverse array of vessel segments.

2 SEGMENTS

Tankers, Bulkers, Ro-Ros, Cruises, Ferries, Gas Carriers, and General Cargo vessels.



**LET'S MAKE IT HAPPEN.
SAILING TOWARDS A
SUSTAINABLE FUTURE**



KEEP IN TOUCH

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