



CLOUD TOWING TANK

Cloud Towing Tank is a Computational Fluid Dynamics (CFD) service specialised for problems in ship hydrodynamics. Our main goal is to offer ship designers and shipowners a reliable, versatile, and responsive service for getting access to information such as ship resistance, propulsion power, Energy Saving Device performance, Trim optimization data and more.

CFD for Shipowners

Energy Saving Devices: We offer the most high-fidelity simulations of Energy Saving Devices, enabling you to make the right decision for the fraction of the cost of the ESD.

EEXI: According to MEPC 78 IACS guidelines, our CFD simulations can be readily used for reference speed prediction in the EEXI report. We offer a turnkey EEXI solution that can lead to the EEXI rating improvement for a small cost compared to alternatives such as sea trials or model tests.

Trim optimization: We partner up with leading class-approved loading software to offer a turnkey trim optimization solution based on highest fidelity data:

LoadMaster



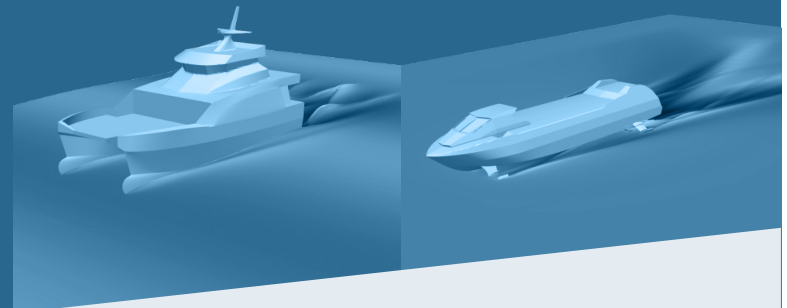
CargoMAX



CFD for Ship Design

We deliver ship resistance and self-propulsion data within a few days.

Get access to data early in the project in an easy way.



Professional, prompt and efficient, with Cloud Towing Tank it is possible to use CFD calculations even in concept design stage.

Igor Lalović, Flow Ship Design, Pula, Croatia

Cloud Towing Tank's team expertise in the particular field of wave diffraction in a river channel has been crucial in conducting a detailed assessment that underpins the feasibility of a near-shore development. Cloud Towing Tank has proved to be a pleasure to work with, combining an undeniable academic acumen with pleasant and professional effectiveness. The added value of their assessment conducted by Cloud Towing Tank has been undeniable. We look forward to working with them at the next opportunity.

Valentin Martin, Navalmartin, London, UK

Cloud Towing Tank are experts in their field, easy to communicate with and deliver fast results. I give them my highest recommendations.

Eirik Bøckmann, Wavefoil AS, Norway

CTT and Inno Gatin was a clear light to our design, with the CFD study they have made for the 42m explorer project that helped us to decide deeper in details.

İbrahim Karataş, Karataş Yacht Design, Istanbul, Turkey

Working in close cooperation with this company, we fully satisfy our needs in the hydrodynamic calculations of ships. The accuracy and speed of the calculations pleasantly surprises. In-depth knowledge of the mathematical apparatus used in combination with the engineering approach gives this company undeniable advantages in the accurate and high-quality performance of hydrodynamic calculations of ships of various types.

Alexander Alexanov, Marine Software Integration, Sola, Norway

For more information contact:

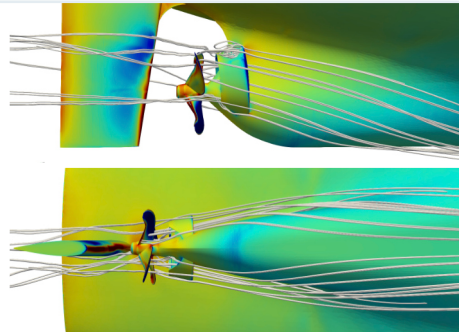
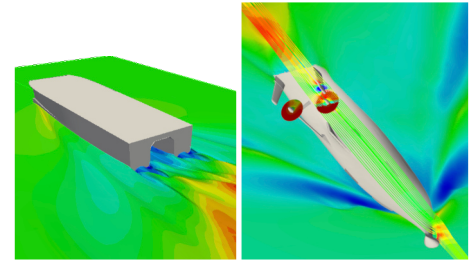
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Calm water resistance and self-propulsion

Ship resistance and self-propulsion in calm water can be calculated for any vessel at any speed, including displacement, semi-displacement, planing, hydrofoil and multi-hull vessels. The results are delivered within a few days.

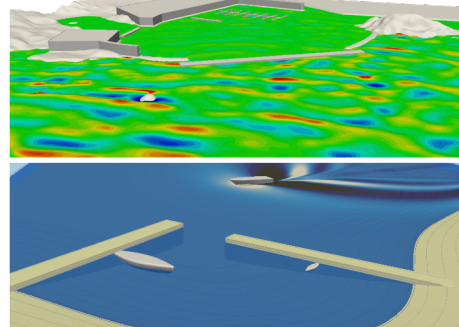
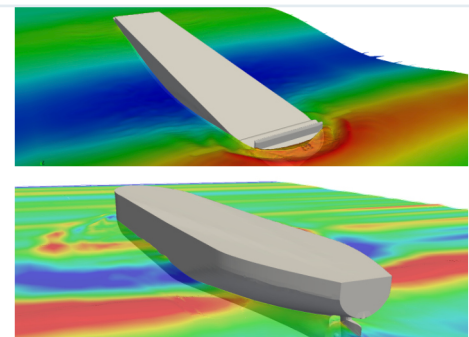


Propeller-hull interaction and ESD performance prediction

ESD simulations include detailed propeller geometry, enabling accurate prediction of complex propeller-hull interaction and efficiency of an ESD.

Added resistance in waves and wave loads

Our software enables easy evaluation of added wave resistance or powering in irregular or regular waves, together with motions for comfort and acceleration loads. Wave loads in extreme weather are also available.

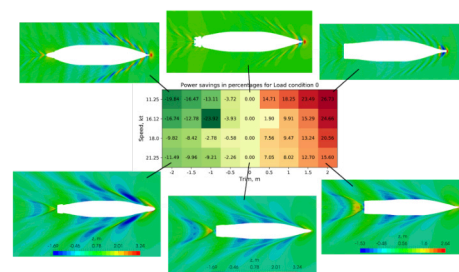
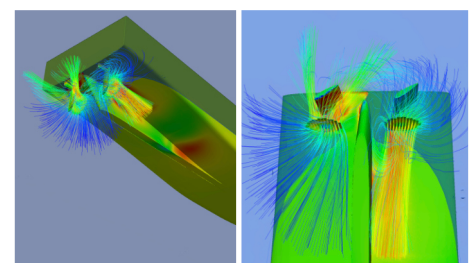


Marinas and ports: wave propagation and loads

Simulations including realistic wave conditions can be used to assess the effectiveness of wavebreakers and piers of ports and marinas. The simulations include motions of moored floating objects. Waves can be wind and/or ship-generated.

Manoeuvring

We offer standard manoeuvring simulations such as turning circle manoeuvre, as well as special cases such as crabbing, zero initial speed manoeuvre forward or aft, and similar. Arbitrary combinations of rudder deflection and propeller thrust direction can be prescribed. Thrusters are also supported.



Trim & draft optimisation

We generate a large database of required propulsion power depending on speed, draft, and trim. The data can be fed into a loading software, offering unprecedented convenience and automatic optimization/ballasting process.