

Computational Fluid Dynamics (CFD)

Computational Fluid Dynamics (CFD) plays a pivotal role in the maritime industry, offering precise speed-power estimates for vessels. At Normec Verifavia, we utilize CFD analysis to facilitate the accurate determination of a ship's actual reference speed, crucial for EEXI compliance evaluations. This approach not only aligns with regulatory demands but also enables the effective evaluation of Energy Saving Devices (ESD) for retrofitting strategies, ensuring compliance with EEXI requirements.



Improve EEXI Accuracy with CFD Simulations

Computational Fluid Dynamics (CFD) offers a cost-effective and precise alternative to towing tank tests, especially when actual sea trial data at EEXI draft is unavailable. By simulating ship-specific speed-power curves, CFD helps estimate a more accurate reference speed (V_{ref}), leading to a lower and more favorable EEXI value compared to default formulas. It also supports EEXI calculations for Energy Saving Device (ESD) modifications, validating their impact on vessel performance through reliable, calibrated simulations.

Why Choose Normec Verifavia?

- Experienced team specializing in maritime CFD analysis.
- Accurate 3D modeling and simulation for reliable results.
- Detailed reports to support EEXI compliance and decision-making.

Process

- 1 Data Collection**
Structural and hull shape data is gathered
- 2 3D Model Generation**
A digital 3D hull model is created
- 3 CFD Simulation**
Meshing is applied and CFD analysis is performed
- 4 Reporting**
Results are compiled into a detailed test report

**Get precise EEXI compliance with expert CFD analysis.
Contact us for reliable results and smooth compliance support.**