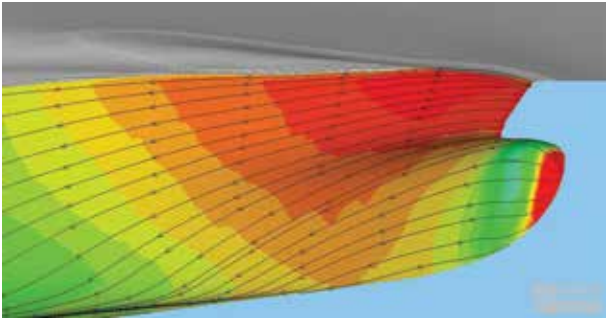


Hydrodynamic ship services



Services provided by FORCE Technology to the ship design and shipbuilding industry include:



Initial design services

We provide a complete suite of services including:

- Speed and power predictions
- Seakeeping calculations
- Manoeuvring predictions
- CFD review and optimisation
- Holding capability calculations



Advanced numerical assignments

We provide numerous types of investigations including:

- Viscous flow RANS CFD calculation
- 3D Diffraction code seakeeping calculations
- Prediction of added resistance in waves using advanced time domain code
- Time domain simulations.
- Operational study based upon actual wind and waves (hindcast data) on a specific route



Still water tests

We provide all types of still water tests including:

- Resistance tests
- Self-propulsion tests with all types of propulsion systems
- Flow visualisation tests
- Cavitation tests



Manoeuvring assignments

We provide all types of manoeuvring tests including:

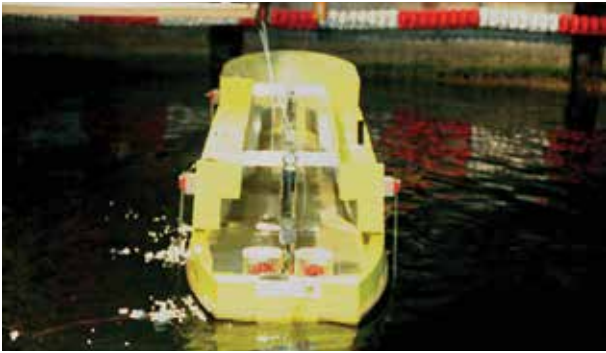
- Course stability tests
- Crabbing capability calculations and tests
- Captive manoeuvring tests in Planar Motion Mechanism (PMM)
- Free sailing manoeuvring tests manually controlled or by means of autopilot.



Seakeeping assignments

We provide all types of seakeeping tests including:

- Captive resistance and propulsion tests in waves
- Free sailing seakeeping tests manually controlled or by means of autopilot



Mooring and station keeping assignments

We provide numerous types of investigations including:

- Holding capability calculations
- DP simulations
- Full DP model tests
- Mooring calculations and tests



In-service assignments

We provide numerous types of investigations including:

- Expert appraisals
- Trial trip execution
- Trial trip result evaluation.



Onboard decision support tools

We provide a suite of onboard decision support tools including:

- SeaTrend – Performance Management tool
- SeaPlanner – Advanced Weather Routing
- SeaTrim – Optimum trim selection tool

FORCE Technology has a profound know-how in hydro and aerodynamics. Through dedicated and highly skilled staff, we cooperate with leading ship designers, consulting naval architects and shipyards all over the world.

The aim is always to liaise closely with the client throughout an assignment — from initial inquiry until the final report has been approved by the client.

For further information:

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Subject to change without notice