

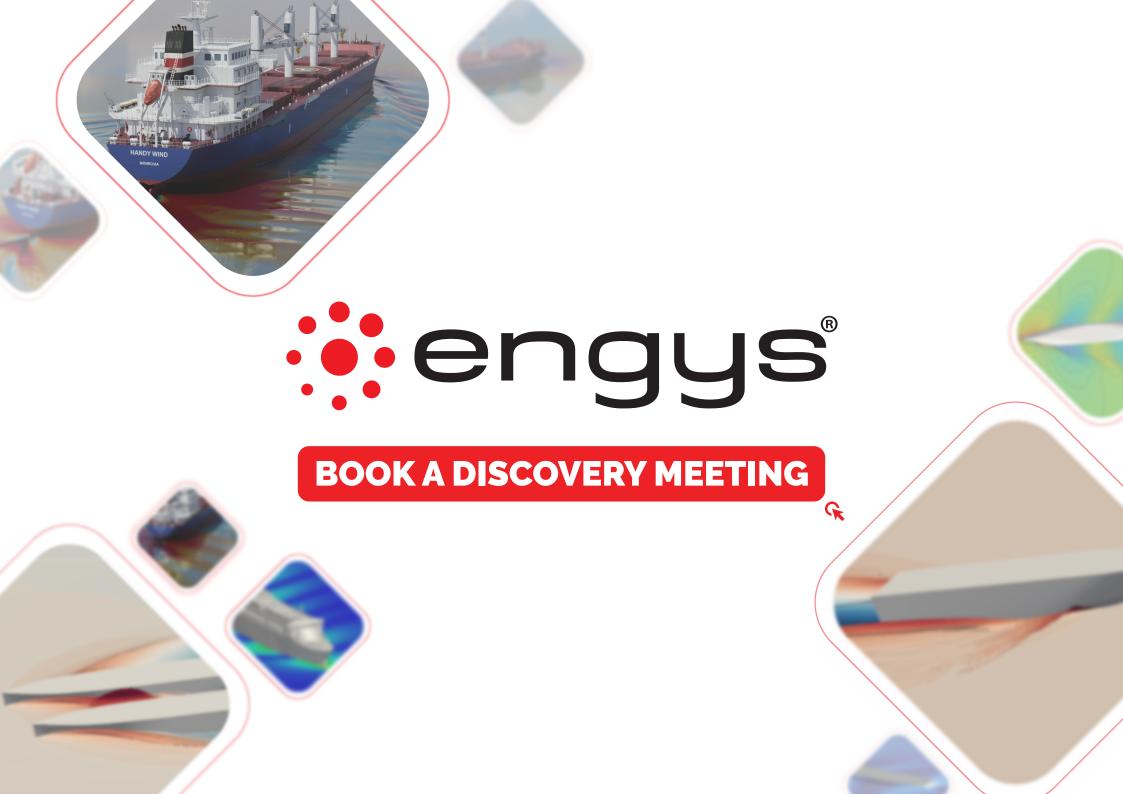
## **Naval and Marine Specific**





CALM WATER RESISTANCE		MARINE
Volume of Fluid (VOF) solver with support for 6 Degrees of Freedom (DoF)	•	•
VOF solver with support for 6 DoF, implicit wave relaxation zones and Adaptive Mesh Refinement (AMR)		•
Advanced 6DoF library with added masses and inertias		•
Advanced 6DoF body motion, velocity and acceleration report		•
Linearised free surface flow RANS solver		•
Double body steady state solver	•	•
RANS and DES/LES turbulence models	•	•
Smooth and rough wall functions	•	•
Nominal wake fraction calculation	•	•
Automated templates to setup the model		•
SEAKEEPING		
First order Stokes regular waves library		•
Second order Stokes regular waves library		•
Fifth order Stokes regular waves library		•
Stream Function regular waves library		•
Solitary wave library		•
Potential current		•
Irregular waves library (bichromatic, JONSWAP, Pierson-Moskowitz)		•
Implicit relaxation zones		•
Calculation of added resistance in waves		•
Calculation of ship motion response in waves		•
Automated templates to setup the model		•
SELF-PROPULSION		
Double body solver	•	•
VOF solver with 6DoF motion support		•
Transient sliding mesh for actual propeller modelling	•	•
Implicit wave relaxation zones and Adaptive Mesh Refinement (AMR)		•
Actual propeller with fixed RPM	•	•
Fixed thrust body force model actuator disk	•	•
Body force actuator disk model with Kt/Kq input curves	•	•
PID RPM controller based on target SFC or cruising speed		•
Automated templates to setup the model		•







www.engys.com