

# PRECISE AND PRACTICAL



## **OSD-IMT RESEARCH VESSEL DESIGNS**

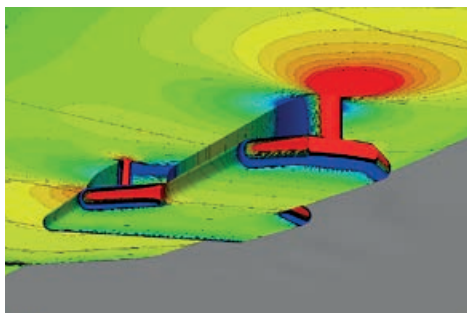
**BESPOKE RESEARCH VESSEL DESIGNS  
TAILORED TO YOUR NEEDS  
EXPERIENCED, PRACTICAL, SHIP DESIGNERS**

**OSD IMT**

SHIP DESIGN & MARINE CONSULTANCY

OSD-IMT.com

# OSD-IMT RESEARCH VESSELS



## PROVEN HULL FORMS

Proven Hull forms, developed to minimise the effects of bubble sweepdown, whilst still being fuel efficient.



## TANK TESTS

Working with Model test tanks and propeller manufacturers to minimise propeller and appendage cavitation.



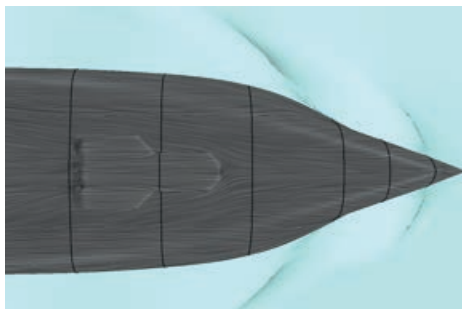
## SEE THE FUTURE

We use 3D design to provide the Customer with clear visualisation of key operational areas.



## KNOWLEDGE & EXPERIENCE

OSD-IMT has detailed knowledge of the placement and integration of the Scientific equipment and Overside handling equipment.



## CFD ANALYSIS

Hull form development through CFD analysis and physical model testing, including bubble sweepdown, powering, seakeeping and propeller cavitation testing.

## SUPPLIERS

OSD-IMT works closely with the Transducer suppliers to produce optimised configurations.

## NOISE & VIBRATION

OSD-IMT is experienced in producing low noise ship designs, including underwater radiated noise.

# RESEARCH VESSELS DESIGNS



## OSD-IMT2001 OCEANOGRAPHIC RV

**A 76m, ocean capable research vessel designed for a multitude of operations including ROV Underwater operation and monitoring, Sonar Measurement and mapping of Topology and Stratum, Sonar Terrain surveying and mapping, Seismic pattern detection and Piston core and Deep water sea bed sampling.**

**Key features include:**

- survey equipment mounted in a Gondola, to isolate the equipment from bubble sweepdown and hull vibrations.
- three-deck mounted "A" frames to handle an ROV and over side equipment including Vibro-corer, CDT equipment and grab samplers.
- Resiliently mounted equipment ensures low on-board noise levels.
- Noise and vibration considered throughout the design, including resiliently mounted main and auxiliary equipment, noise source separation from transducers, acoustic privacy design for accommodation.



## OSD-IMT2003 GEOTECHNICAL RV

**The features of this vessel are optimised for gathering geological samples and hydrographic surveying in shallow waters. Key features include:**

- Shallow draught.
- Four-point mooring system for precise location in shallow waters.
- Drill and core sampling tower to permit deep samples of the seabed to be retrieved, stored and analysed on board.
- Safety features related to gas emissions from the seabed.
- Compliant with DNV notations Silent-A, and Silent-S.
- Storage for up to 220 core samples of varying diameters under temperature-controlled conditions.



## OSD-IMT2006 FISHERIES RV

**Designed to transmit a low noise signature to avoid any adverse interference with marine creatures and fishery research equipment. Key features include:**

- DNVGL SILENT F notation.
- Stern "A" frame for deployment and recovery of scientific and sampling equipment.
- Stern ramp for retrieving nets and trawl gear.
- Two drop down keels and a gondola for transducers.
- Single large propeller/shaftline arrangement with slow speed motors (no gearbox) for low noise towing/surveying operations.
- Enclosed ROV hangar with launching davit.

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# INDEPENDENT INNOVATIVE SOLUTIONS

## EXPERIENCE AND INNOVATION

General requirements for most research vessels may be similar such as packages of survey equipment, extensive accommodation, the provision of laboratories, a safe working deck, good seakeeping characteristics, low noise and the avoidance of bubble sweep-down. Other operational requirements, such as dimensional limitations, manoeuvrability, ice capability, towing requirements and speed, mean that there are many different solutions for optimising a design. The OSD-IMT suite of vessels provides the basis for developing these specialised designs to meet your specific requirements.

## DELIVERING NAVAL ARCHITECTURE AND MARINE ENGINEERING EXPERTISE



**OSD-IMT is a global one-stop resource delivering naval architecture and marine engineering expertise to the shipping and offshore industries. We can also assist our clients with benchmarking shipyards and equipment.**

Our experienced workforce provides high-quality feasibility studies and conceptual and detailed designs for tugs and harbour craft, dredgers, ferries, yachts and offshore support vessels of all types such as PSV's, SSBV's, AHTS, field support, tanker-assist and survey/ROV support vessels.

Our key strengths are a strong knowledge base, a commitment to environmentally conscious technology and a close relationship with our clients. OSD-IMT has offices in Hoofddorp, The Netherlands, Bideford and Dundee (UK) and in Singapore.

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