



Building Sustainable Competitive Edge Through Superior and Cost-Effective Design

CASE STUDY : MARINE

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First ever indigenously designed Trailing Suction Hopper Dredger (TSHD) reduces operational expenses by up to 50%

The new, cost effective and reliable design reinforced our strength as the Reliable marine engineering partner.

Business Case

The marine industry looks for reliable designs that need to comply with various industry standards. Europe has been traditionally chosen as the preferred destination for designs. This, however, resulted in high operational expenses owing to lack of access to optimized resources.

Our client, one of the largest shipping majors of Asia Pacific, controls more than a billion dollars of assets across areas such as Dredging, Oil & gas, Marine Logistics among others.

By virtue of our leadership in marine engineering services, we were approached by our client to develop a superior yet cost optimized design that can clearly support our client's various market entry strategies.

Expertise

We are a recognized leader in providing efficient and sustainable marine engineering solutions based on Global Collaborative Engineering methodology. Our access to optimum engineering cost destinations along with our flexible engagement models helped our client reduce operational expenditures while improving the engineering efficiency.

Our core engineering expertise enabled us to develop a cost effective and superior design that reduced the usage of steel considerably thus minimizing capital expenses incurred on the vessel.

This design gave the client a distinct competitive edge at a global level

Benefits

The new, cost effective design gave the client a clear competitive advantage in bidding for various dredging projects globally, thus strengthening our position as a reliable marine engineering partner.

The new design of the TSHD with single hull & optimized fuel tank capacities reduced the usage of steel significantly consequently shrinking capital expenses incurred.

Vessel designed with heavy fuel oil main engines had 50% reduction in operational expenses

Project Details

Developed the Concept design, Basic design report, FEA Report, Plans and Detailed technical specifications for the 7000 m3 Trailing Suction Hopper Dredger (TSHD) as per ABS class rules.

Developed main dimensions, optimize hull form for powering, sea-keeping and maneuvering as per outline specifications

Performed scantling & stability calculations and global FE analysis.

Developed General arrangement, Tank plan, Machinery & pump room arrangements and at the same time were optimized for functional and maintenance requirements

Estimated the specifications for machinery, equipment, service pumps and main generators and coordinated with suppliers/vendors.

Generated Plans for Structural, Outfitting, Piping and Electrical systems as per the rules, regulations and Standards.

Tools and Technologies

NAPA, Hypermesh, Ansys, Pipeflo, Etap

About Infotech

Infotech Enterprises provides leading-edge engineering solutions, including product development and lifecycle support, process, network and content engineering to large organizations worldwide. With nearly two decades of continuous growth and profitability, we leverage our "Global Delivery and Collaborative Engineering Model" to achieve measurable and substantial benefits. We help you for our clients, right from day one of any engagement.

To put it simply, whether you need to design innovative products faster, optimize your R&D costs, increase your market-share, enhance your operational efficiency or maximize the return on investment in your networks, Infotech Enterprises is the ideal partner.

Headquartered in Hyderabad, India, Infotech Enterprises is a leading global engineering services and solutions company with 8,000+ associates across 30 global locations. We adopt a consultative and proactive approach to serve our clients worldwide with our best-in-class delivery centers in North America, Europe, Middle East and Asia Pacific regions. Our clients operate in different industrial verticals such as Aerospace, Rail, Heavy Engineering, Semiconductors, Telecom, Utilities and Energy and include 22 'Fortune 500' and 27 'Global 500' blue chip organizations across the globe.

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