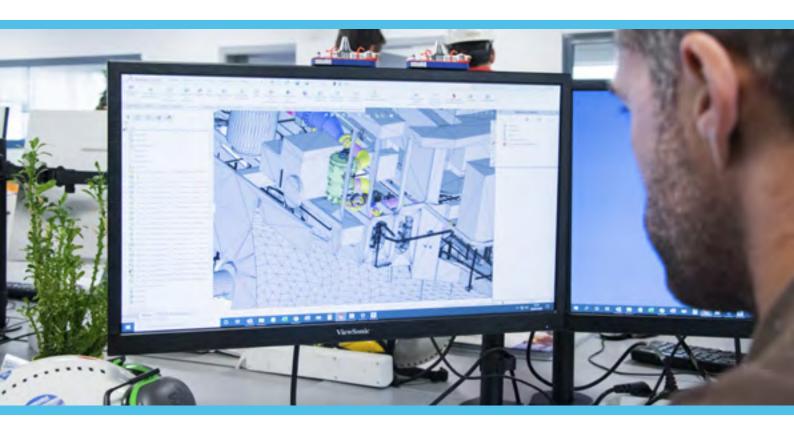


One Team, One Vision

ENGINEERING SERVICES



What we do?

During the last decade, the Hidramar Group has grown significantly thanks to our experience and constant training of the entire team plus the extraordinary management results in large-scale projects.

The Engineering team has extensive experience in the conception, planning and project execution, developing a standardized process whose result is excellence.

We offer a wide range of services in the field of mechanical engineering, from initial feasibility studies, detailed engineering, to commissioning, construction and final handover.

How we do it?

By operating in different sectors, we can transfer knowledge between industries for the benefit of our clients; Our experience in sectors as strict as Mining, Maritime and Oil & Gas, combined with our focus on customer needs, makes us your partner of choice for all types of projects.

Considering the diversity of needs operations in the sector we have full willingness to provide solutions 24 hours and 365 days a year.

GEOREFERENCED POINT CLOUDS

For each project there is a suitable tool to use; In the case of BIM (Building Information Modeling) projects, it is extremely useful to include the generation of point clouds through 3D scanning in the workflows.

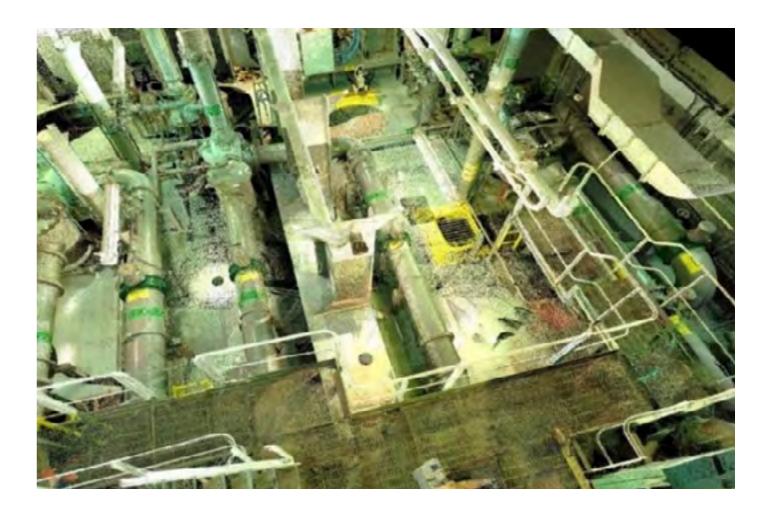
Georeferencing this point cloud within geographic coordinates will give you a real, geographic contextualization. These geographical references of points can be inserted in different platforms for a better application in your project; Among the most common platforms we can find AutoCad, Revit, Civil 3D and Faro Scene among others.

3D SCANNING AND MODELING

Our 3D scanning service offers dynamic solutions where our team capture real 3D environments into a point cloud of space and its content. Subsequently and from the 3D point cloud we can develop 3D modeling, using the modeling as a basis to help locate equipment and create more efficient production stations.

3D scanning can assist to provide basic and/or details drawings, as built drawings, structural drawings, P&Id isometric, SLD/Cable tray route





STRUCTURAL, MODELLING & ANALYSIS

With a structural model analysis our team ensures that the vessel's structure is designed to meet safety and performance requirements while minimizing the weight and cost of repair or fabrication. By using modeling and simulation tools, our engineers can optimize the design of the vessel's structure to ensure that it is both safe and efficient.

PIPE ROUTE MODELLING (FROM 3D SCAN)

Hidramar Group engineers have the expertise to design virtual 3D models for piping systems, creating a detailed model, including all the components, fittings and connections. Helping our technicians to easily visualize the pipe system installation or repair, identifying potential issues and conflicts before starting the scope of work saving time and money to our clients.

GENERAL SURVEY

Hidramar Group Engineering team can help client to identify any issue on vessel ensuring that remains in safe and seaworthy condition.

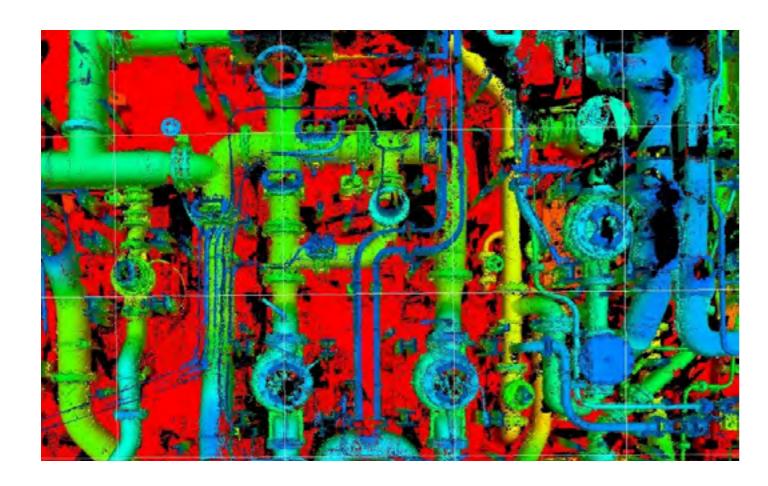
During the survey our team will perfom visual inspection, test and measurements and will provide a detailed report outlining any issue, along with recomendations for corrective action; so you can prioritize manteniance and repair to ensure your vessel remains in compliance with applicable regulations.

REVERSE ENGINEERING

Reverse engineering has become necessary and useful when reconstructing classic models and implementing new designs from a CAD part. Through reverse engineering opens the palpable possibility to generate lost or non-existent design documentation and update or create documents according to work.

Hidramar Group's engineering team will execute the 3D laser scanning, with portable equipment that will capture images integrating the modeling processes, without additional and cumbersome tasks.

Reverse engineering is your ally to accelerate the development of prototypes and surface inspection in assembly, its application has no limits.





BALLAST WATER TREATMENT SYSTEM

Our engineering team has developed a wide range of options to help our clients to fulfill industry requirements. Supported with cutting edge technologies we can deliver on the most cost-effective bases the full commissioning without delaying the operations of the assets

Bwts Basic Engineering

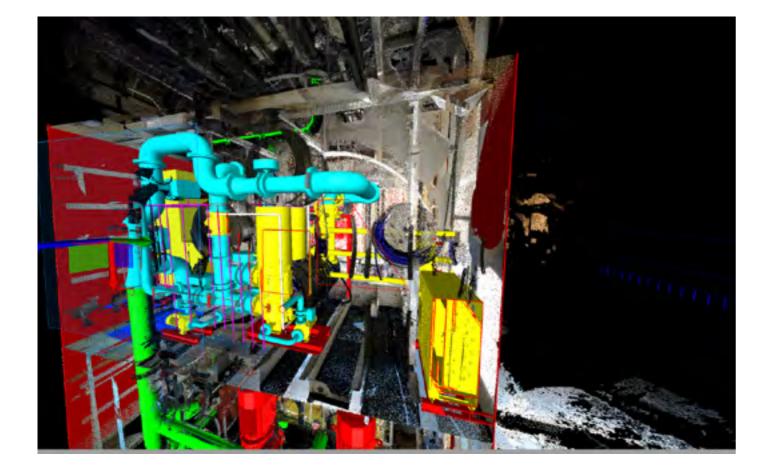
- Survey and technical information compiling.
- 3D scanning and modelingUpdate of vessel P&ID and drawings
- Approval of classification society

Prefabrication Out-Fittings

- Pipe lines fabrication works on galvanized or epoxy components.
- Bulkhead penetrations and cable trays installations.
- Chemical storage Tank Fabrication.

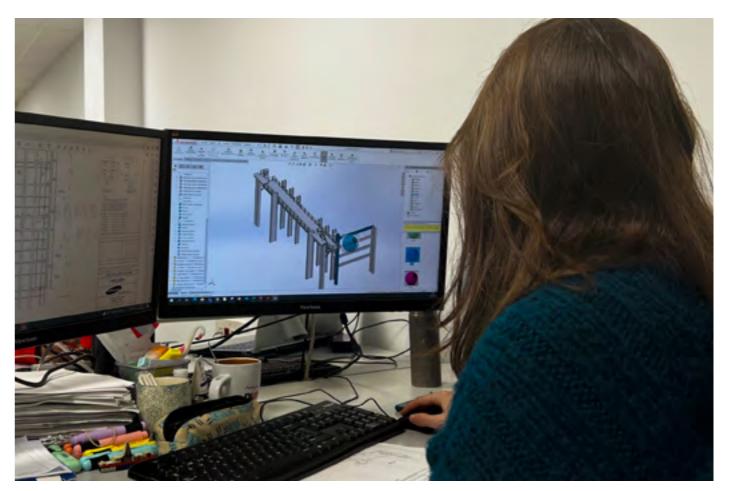
Ballast Water Treatment System Installation

- Considering our strategic location we can bring on board our skilled technicians to perform the installation onboard even during sailing.
- Procurement and prefabrication of all the elements in order to save precious time.
- Connecting to main lines can be done once arriving to final drydock.
- Support during commissioning alongside manufacturer and certification by Class Society.



INCLINING TEST / LIGHTSHIP SURVEY

Our team can provide inclining test to help our clients to ensure the safety of the ship and its crew, as well as for making decisions about modifications to the ship's design or cargoloading procedures.



Engineering Software We Relay On

- SolidWorks
- AutoCAD
- AutoCAD 3D Plant
- Tekla
- ReCap
- Naviswork
- Various Excel Calculation Sheet

Coordination With Class society for Approval

- ABS
- BV
- DNV
- I R

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