



Secure tomorrow by knowing today

Performance Audit Marine



Safety. Performance. Costs.

Three important reasons to stay ahead of equipment problems.

If you could know in advance whether something will break, or if processes could be faster, cheaper and better, wouldn't you want to know? That is exactly the foresight an Alfa Laval Performance Audit will give you. Consider us your equipment detectives, trained to quickly spot the clues that can solve budget-shattering, and potentially dangerous, problems before they occur.

In-depth analysis together with your engineers

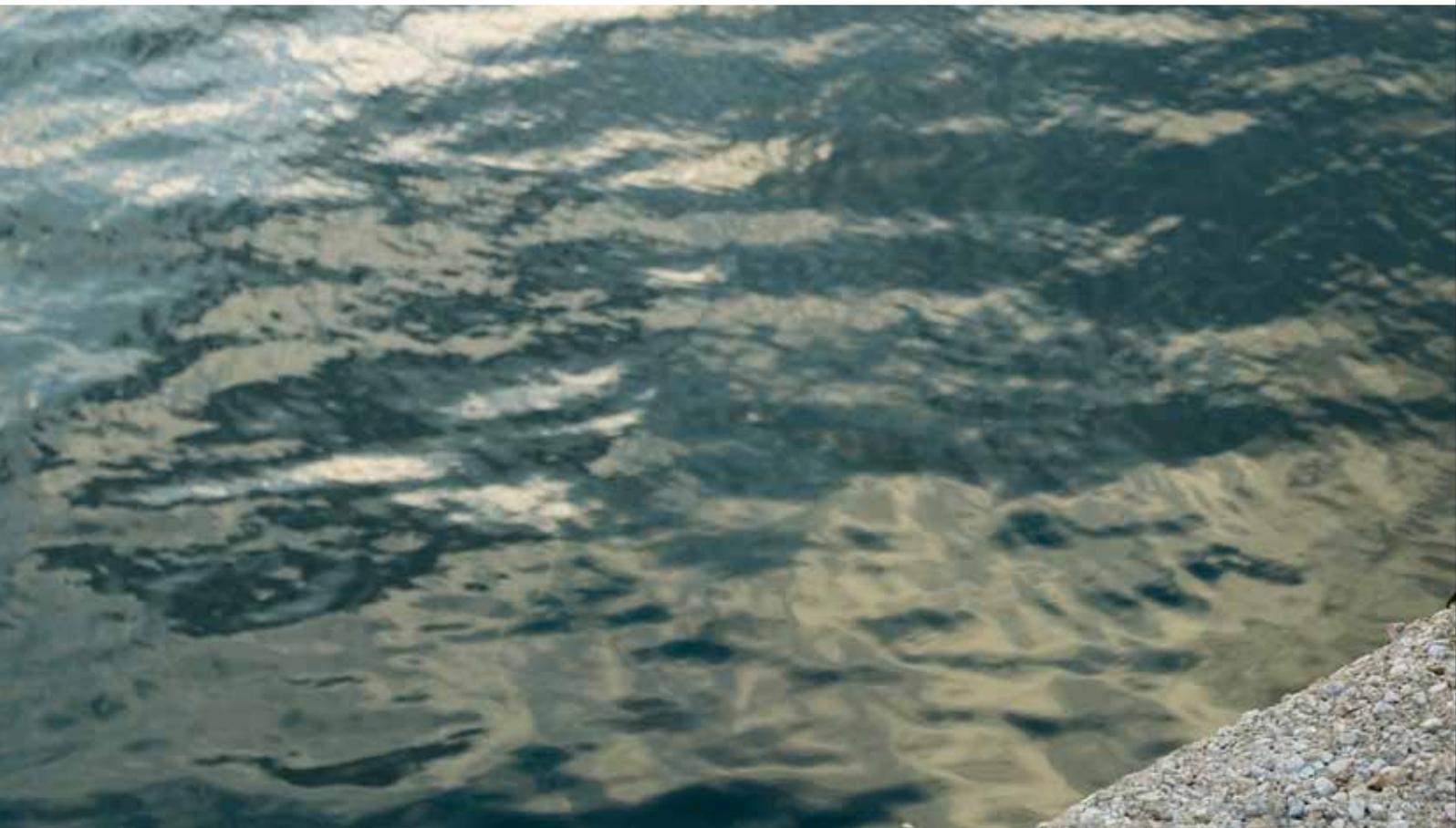
During a Performance Audit, our certified and experienced engineers inspect your installed Alfa Laval equipment to optimize performance and reduce operating costs wherever possible. We have direct dialogue with your engineers to understand their hands-on experience with the unique conditions, needs and priorities on board your ship.

Focus on both equipment status and correct handling

One area we discuss during a Performance Audit is the correct setting and usage of the Alfa Laval equipment, which can be at least as important as the equipment itself. For example, running the separators at too low temperature increases the risk of cat fines reaching, and potentially destroying, the engine. A simple change of handling procedure will improve the effectiveness of the equipment as well as the safety of your engine operation.

Typically, we focus on the following equipment:

- High-speed separators
- Gasketed plate heat exchangers
- Freshwater generators



Comprehensive performance reports

Once we have completed our review, you will receive a detailed report with our findings and recommendations. This gives you the knowledge and practical steps you need to ensure you will operate as planned with optimum performance from your equipment throughout its working life — and even to extend its life.

Here are just a few of the items in our Performance Audit checklist:

- Visual inspection of the main Alfa Laval equipment
- Vibration check of the high-speed separators
- Process parameters and alarm history check in control units
- Maintenance and operational procedures evaluation
- Spare parts and inventory recommendations

Training and education

We can also provide your crew and operators with tailored, hands-on training in correct operations. In addition to demonstrating essential techniques and best practices, we focus on the specific areas our Performance Audit shows need attention. So you gain peace of mind that your crew has the skills and know-how to give you optimum performance and lower cost of ownership throughout each product's life cycle.

Maximized return on your investment

- Ensure equipment reliability
 - Minimize risk for failures
 - Optimize uptime
- Minimize costs
 - Reduce spare parts consumption
 - Reduce oil losses
 - Avoid unnecessary maintenance cost
- Upgrade knowledge
 - Advice on process and installation improvements
 - Technical recommendations with basic do's and do not's

Performance Audits are ideally done:

- When improving operational performance is essential
- When peace of mind (both for safety and budget) is vital
- When you want to focus on extending the lifetime of your equipment
- If you are experiencing high spare parts consumption
- Prior to dry-dock
- Whenever you add a vessel to your fleet



Securing operation

When separators running with the wrong flows and temperatures contributed to crankshaft damage on board the Alexander von Humboldt in 2009, Jan De Nul Group made a strategic decision. All 72 ships in their fleet would have a Performance Audit every 2.5 years, along with annual crew training, as part of their regular maintenance programs.

“Despite all available manuals, the human factor creates mistakes,” says Marc Ruysinck, Fleet Manager for Jan De Nul. “Status has to be checked regularly to achieve optimal condition of the equipment. Our experience with Performance Audits is good. So far, we haven’t had any similar cases as on the Alexander von Humboldt.”



“With Performance Audits and regular training of the crew we have good protection of the most valuable onboard system – the main engine.”

Marc Ruysinck

Fleet Manager, Jan De Nul Group, Belgium

Troubles ahead left behind

“The Performance Audit gives our customers a good overview of their ship’s condition. This leads to plannable and often reduced maintenance costs...”

Britta Wanckel

Segment Manager Service Sales

A German ship owner decided to do Performance Audits on three older vessels in the fleet that were in need of upgrades. The audits clearly showed what upgrades and services were necessary to bring the vessels back into top condition in the most cost-efficient way. The vessels are now in full operation with Performance Agreements, where the Performance Audit functions as condition monitoring.

The owner of the vessels was so satisfied with the result that Performance Audits were also performed on four ships that were to be acquired. The Performance Audits clearly showed the ships’ status and what needed to be repaired.

Extending performance across the world

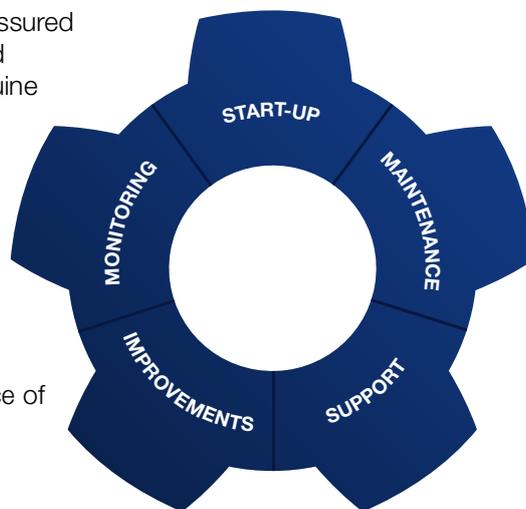


Alfa Laval has an extensive global marine Service network and offers Performance Audit services in main ports. Contact your sales representative for further information.

As part of Alfa Laval's 360° Service Portfolio, Performance Audits are an ideal complement to an overall Performance Agreement, ensuring you have all the services you need to gain high performance, uptime and operating efficiency over the entire lifecycle of your Alfa Laval equipment.

With a tailored Performance Agreement, rest assured you can choose the services most relevant and beneficial for you. In addition to supplying genuine spare parts and performing regular maintenance, Alfa Laval's experts can keep track of the condition of your equipment, improvement opportunities, service intervals, etc. All services are planned in advance and Alfa Laval makes sure they are carried out on schedule. We handle the practicalities; you focus on your core business.

A Performance Agreement gives you true peace of mind and full control over your service budget.



A service from Alfa Laval 360° Service Portfolio

Alfa Laval in brief

Alfa Laval is a leading global provider of specialized products and engineered solutions.

Our equipment, systems and services are dedicated to helping customers to optimize the performance of their processes. Time and time again.

We help our customers to heat, cool, separate and transport products such as oil, water, chemicals, beverages, foodstuffs, starch and pharmaceuticals.

Our worldwide organization works closely with customers in almost 100 countries to help them stay ahead.

How to contact Alfa Laval

Up-to-date Alfa Laval contact details for all countries are always available on our website at www.alfalaval.com

