

# Alfa Laval PureBallast 3 retrofit

Installing a ballast water treatment system on an existing vessel



As the most experienced global supplier of ballast water treatment systems, Alfa Laval has worked with retrofit installations for a decade. Our capabilities and accumulated knowledge make us the most qualified supplier for your retrofit needs.

Our leading-edge PureBallast technology is paired with a comprehensive and flexible approach to project management. This lets us customize each project, meeting both your requirements and those of your vessel.

## Application

On most vessels there is no space or consideration for ballast water treatment in the original design. A retrofit becomes more complicated than a newbuild project, because it involves the technical and practical circumstances already on board. Even among similar-looking sister vessels, there can be significant differences affecting design and installation.

Alfa Laval PureBallast 3 has a compact and highly flexible construction that facilitates installation in an existing space. But most importantly, Alfa Laval has the hands-on knowledge and proven working procedures to adapt it for any vessel.

## Customized solution and scope

Alfa Laval can tailor a PureBallast 3 retrofit project to an individual vessel or your entire fleet. We adapt our efforts to your own needs and resources, working closely with you to meet your specifications and timeline.

We can work with your own engineering department and chosen yard, or we can secure all necessary competencies from within our network. Likewise, we can meet your existing docking schedule or arrange for installation during your voyage.

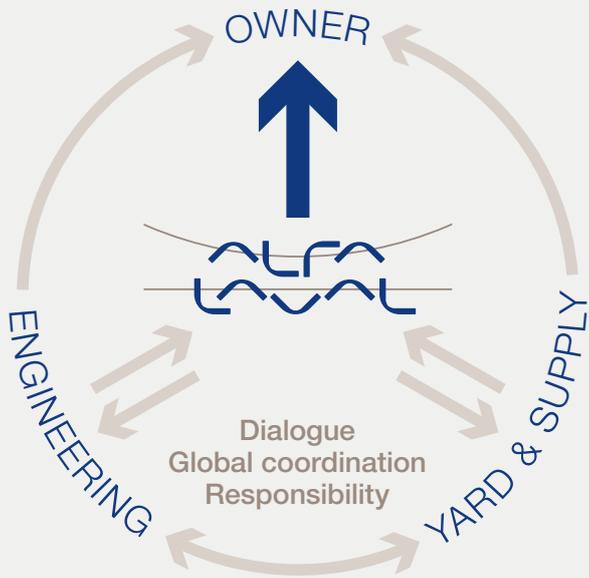
Crew training, budgeting assistance and even financing options are available.



PureBallast 3 reactor integrated into pipework after installation.

## Alfa Laval retrofit strengths

- Unmatched experience from 10 years of retrofit projects in ballast water treatment
- Technical ability and practical flexibility
- Comprehensive application and regulatory knowledge
- Skilled design and engineering resources
- Strong partnerships and effective partner management
- Well-established procedures refined over a decade
- Global presence for effective logistics and ongoing performance support



### Project workflow and coordination

Every PureBallast 3 retrofit project is unique. The following steps are generally included, but each is customized to meet vessel needs and your particular circumstances:

- Evaluation of existing ballast layout
- Preliminary onboard survey (optional)
- Onboard survey combined with 3D scanning
- Pre-engineering
- Order of system
- Detailed design
- Class approval
- Prefabrication and acquisition of materials
- Installation

### Commissioning

Partnerships are required in many of these phases, often at a global level. Depending on your project, there may be any number of partners in addition to the yard and/or installation partners. Alfa Laval's network comprises engineering support, 3D laser scanning, class approval and more, as well as total solutions.

Strong cooperation is necessary for success. Alfa Laval safeguards the retrofit process, making certain that all project partners understand the scope, the timeline and their responsibilities. Everything is documented in a project specification, and Alfa Laval's well-established routines ensure that this is followed.

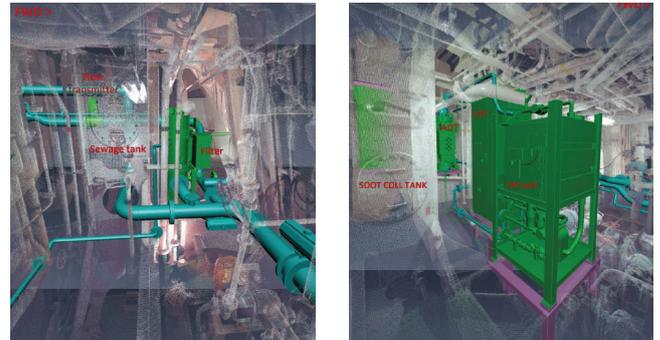
### Global strength and flexibility

Retrofits are complex undertakings, involving multiple sites worldwide. If your trading routes change prior to your docking, you may even need to move your docking site to a different country, region or continent. This will increase the logistical demands.

As a global organization with strong logistics, Alfa Laval can adapt and move with your needs. Our presence and capabilities worldwide ensure a smooth and successful project, even when major changes occur.

### Close cooperation and best practices

Working with Alfa Laval is simple, no matter how challenging your retrofit project is. Our customer-focused project management team is with you throughout the process. They ensure that Alfa Laval's global experience and best practices are applied for maximum benefit in your own PureBallast 3 project.



3D laser scans allowing exact positioning of PureBallast 3 components.

Alfa Laval reserves the right to change specifications without prior notification.

### 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](http://www.alfalaval.com).