



## Strong partnership and planning in PureBallast 3 bulker retrofits

Nova Ship Tech

Case story



**As the technical department of Nova Marine Carriers, Nova Ship Tech coordinates maintenance and building across a fleet of over 40 bulkers, cement carriers and general cargo vessels. That includes installing Alfa Laval PureBallast 3 systems for ballast water treatment.**

Nova Marine Carriers has been in the marine industry for nearly 40 years. During that time, Nova Ship Tech has frequently worked with Alfa Laval equipment, from separators to pumps to boilers. When it came to equipping vessels at Nova Marine Carriers for ballast water treatment, Alfa Laval was a natural partner to look to.

“We have a long relationship with Alfa Laval,” says Francesco Costagliola, Technical Director at Nova Ship Tech.

“On any vessel, it’s common to have Alfa Laval equipment on board, and we’re happy to find it there. It has good quality compared to a lot of the equipment you find nowadays.”

### **UV and USCG both important**

Nova Ship Tech signed a fleet agreement with Alfa Laval in early 2018, committing to install PureBallast 3 on existing vessels as they near their compliance date, as well as on newbuilds. Behind the decision was a desire for both UV technology and U.S. Coast Guard (USCG) type approval.

“We considered other solutions, but in the end we decided to go with UV,” Costagliola says. “UV systems are much simpler and require less commitment from the crew to manage. Plus they involve less risk.”

### **Strong confidence in Alfa Laval**

Alfa Laval was not alone in having both a UV solution and USCG type approval. But Nova Ship Tech’s confidence in Alfa Laval as a supplier was especially high.

“This equipment is tied to a legal obligation, and we wanted a brand that would give us the best support possible,” says Costagliola. He explains that failure of the ballast water treatment system would require communication with authorities and immediate actions to resolve the issue. In short, he says, “Having a solid friend like Alfa Laval backing us up, I do believe that we have a bigger chance of fixing any problem as quickly as possible.”

To this end, Nova Ship Tech's agreement with Alfa Laval also includes a dedicated stock of spares. "Though we keep minor spares on board," Castigliola says, "Alfa Laval warehouses major spare parts for our specific systems, just to make sure we can fix things in the event of trouble."

### Savings through detailed planning

Nova Ship Tech's first two retrofits of PureBallast 3 were prepared and installed in 2018. One bulker received a dual solution comprising two individual systems of 400 m<sup>3</sup>/h, which were chosen to match parameters already determined on a sister vessel. The other vessel, a cement carrier, received a single 250 m<sup>3</sup>/h system.

Project engineering for both vessels was handled by IDAL Group, an Alfa Laval partner who first carried out a location study with 3D scanning. "Especially on small vessels, where the space in the engine room is very limited, 3D scanning gives an idea of what the impact will be," Costagliola says. "When you do the detail engineering, you have full specifications of the piping and modifications to be made, and you know if you have to shift or modify pumps and other components."

This knowledge not only makes life easier, but also saves money. "If you don't know exactly what you have to install and where, it becomes trickier at

the shipyard and has a huge effect on the cost you receive," says Costagliola. "If you spend a bit more in advance, you'll save a lot on shipyard negotiations and the price for dry docking."

### Ensuring fast and easy commissioning

Besides doing the project engineering, IDAL Group was tasked with performing an engineering review and pre-commissioning of the Nova Ship Tech retrofits.

"We asked IDAL Group to follow the installation on board, to minimize any possible issue at the moment of the commissioning by Alfa Laval," says Costagliola. "They are approved by Alfa Laval and always consult the Alfa Laval office in Italy about any doubts, suggestions or complications that might arise."

This approach clearly paid off when it came time to set sail. "We have seven days for commissioning in our frame agreement," Costagliola says. "But even for the dual system, the commissioning didn't take Alfa Laval more than two or three days. It was very smooth."

### Moving forward with additional systems

Very soon, Nova Ship Tech will begin installations of a further three PureBallast 3 systems, comprising two more retrofits and the company's first installation on a newbuild. Since the



Francesco Costagliola

newbuild falls fully under the shipyard's responsibility, however, it is the retrofits Costagliola is most concerned with.

For retrofits especially, Costagliola sees clear advantages in PureBallast 3 compared with other systems. "PureBallast 3 is the only system we've retrofitted," he says, "and it seems to be a much simpler solution."

Above all, though, Costagliola sees the advantage in having Alfa Laval as a partner. He concludes: "I trust in the brand."



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#### How to contact Alfa Laval

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