



PureBallast 3 is a well-established success in the MSC fleet

Mediterranean Shipping Company (MSC)

Case story



Mediterranean Shipping Company, or MSC, is a global shipping and logistics company headquartered in Geneva, Switzerland. Since its founding in 1970, the company has been at the forefront of the container shipping industry. With over 500 container vessels serving 500 ports worldwide, MSC needs simple and reliable compliance with ballast water treatment regulations.

MSC has worked with Alfa Laval PureBallast 3 since 2015, when its first PureBallast 3 system was installed on MSC Rafaela. Since then, the company has installed around 50 PureBallast 3 systems for flows from 500 to 1500 m³/h – and more are on the way. MSC has a comprehensive fleet agreement with Alfa Laval, making PureBallast 3 the standard for all MSC retrofit projects.

“Our emphasis was on the technology, the guarantee provided and also the price,” says Luigi Russo, Technical Department Retrofitting Manager at MSC. “We found everything we wanted at Alfa Laval.”

The right technology in the right package

The process of selecting PureBallast 3 was extensive, says Russo. “At the time of the study, we took into account all kinds of technologies: UV, chemicals, filtration, electrochlorination,” he notes. “We looked for the best technology we could find, and at how the components would be supplied. We wanted something we could install conveniently on the vessel.”

The issue of convenience was important, given both the scale of MSC’s business and the size of its fleet.

MSC carries out all installations with its own engineering company, which has a dedicated ballast water team.

“Alfa Laval has a very easy system. It’s supplied as just parts, and the configuration and installation are both very easy,” says Russo. “We’ve never had a problem with PureBallast 3 when it comes to installing the components. It’s just a matter of following the instructions from Alfa Laval.”

Training engineers for installation success

Instructions from Alfa Laval have come not only by way of manuals, but also through dedicated training at the PureBallast Test & Training Centre in Tumba, Sweden.

“We sent people from our engineering company, from both the mechanical and the electrical side, to Tumba for the one-week engineering training programme,” Russo explains. “The benefit is that they now know exactly how to install. If we talk about the reactor, for example, the inlet pipe needs to be arranged exactly as Alfa Laval specifies. All these instructions were gone through in the training and have been put into use by the engineers. And we see that we’re saving a lot of time as a result.”

Indeed, MSC’s engineering company has become adept at preparing PureBallast 3 installations, which it often performs at sea. “We do the initial work on one vessel for each series, and then the solution can be repeated on other vessels in the series,” Russo says. “Seagoing installation is basically the same. It’s a simple job of connecting the piping and doing the welding on board.”

Smart tools mean well-prepared crews

When it comes to training its crews, MSC is similarly self-sufficient, thanks in part to well-developed Alfa Laval training tools. Russo and two of his colleagues, all of whom were trained by Alfa Laval in Tumba, use real-world and digital simulations of PureBallast 3 to bring crew members up to speed.

“We bought two full-scale hardware simulators from Alfa Laval and installed them at MSC training centres, where we can perform complete ballast water treatment operations,” says Russo. “But we also have PureBallast 3 Computer-Based Training, which I can use on my laptop to train the crews on board.”

Service knowledge keeps uptime high

All this means that MSC’s work with PureBallast 3 is running smoothly. Russo says crews find it easy to learn and operate the system, and any issues that arise are easily worked out with the help of Alfa Laval service experts.

“If a vessel informs us of an issue, we forward the message to Alfa Laval and discuss it,” Russo says. “Generally, we can solve the problem without going on board, simply by adjusting some parameters. They are sure of their technology and know exactly what they are doing.”

For still greater peace of mind, MSC is finalizing an Alfa Laval performance agreement covering services, spare parts and water analysis. “With a performance agreement, we can include all of these things and secure access to service all over the world under the same conditions,” says Russo.

Living up to the promise

Because MSC vessels handle 200 trade routes worldwide, global performance is important – and not only when it comes to service. In this regard, Russo concludes, PureBallast 3 is an excellent solution that has only gotten better.

“Alfa Laval recently announced the new U.S. Coast Guard type approval with very short holding time,” Russo states as an example. “This really mattered to us, because if a one-day holding time is required, we can’t do the ballast operations when we’re in the port. Now there’s only a two-hour holding time, which is very good for container vessels.”

Such continued improvement fits perfectly with MSC’s high expectations. “This is what we were expecting when we chose Alfa Laval,” Russo says. “We know that whatever they promise, they make it come true.”



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