



## Same specifications, greater PureBallast value

Royal IHC, Netherlands

Case story

Royal IHC (IHC) recently supplied Sapura Navegação Marítima with two 550-tonne pipelaying vessels (PLVs), both featuring modularized Alfa Laval PureBallast 2.0 systems. Followed by a repeat order for three more PLVs – now being equipped with PureBallast 3.0.

Sapura Navegação Marítima is a joint venture between SapuraKencana Petroleum and offshore deepwater drilling company Seadrill. The company will use the PLVs from IHC to develop deep-sea oil fields of up to 2500 metres in Brazilian waters. All five vessels will treat ballast water with Alfa Laval PureBallast, but the three new PLVs will feature an upgrade of the original modularized solution.

### Confidence in PureBallast

IHC has a long history with Alfa Laval in ballast water treatment. In 2008 IHC became the first Dutch yard to purchase a PureBallast system, and PureBallast continues to be the yard's solution of choice.

When Sapura Navegação Marítima ordered its first two fully integrated PLVs, IHC designed, engineered and built them with PureBallast 2.0 systems aboard. The Sapura Diamante and Sapura Topázio were delivered in 2014, each with a system capable of treating 500 m<sup>3</sup> of ballast water per hour.

### Modular simplicity

The PureBallast 2.0 systems for the Sapura Diamante and Sapura Topázio were supplied to IHC as ready-to-install modules. These were prepared by Leemberg Piping and Machine



Construction, Alfa Laval's PureBallast Installation Partner for the Benelux region. PureBallast is an extremely flexible system that can be laid out in different ways and fit between existing pipes, which is especially advantageous for retrofits. However, shipyards working with new-builds can benefit from modularization. A ready-made module simplifies design and construction, since it can be lifted in on a skid and simply connected to the appropriate inlets and outlets.

### Advances in technology

When Sapura Navegação Marítima placed the order for three additional PLVs, the specifications for the ballast water treatment were the same as for the Sapura Diamante and Sapura Topázio. Both the owner and IHC expected modularized versions of PureBallast 2.0.

Between the original deliveries and the new order, however, Alfa Laval had launched PureBallast 3.0, the next generation of the system. Offering a minimum energy savings of 30% over previous versions – and up to 60% energy savings with a new dimming function – PureBallast 3.0 would mean long-term advantages for Sapura Navegação Marítima.

#### **Fitting in new advantages**

To let Sapura Navegação Marítima benefit from the new PureBallast 3.0, Alfa Laval and Leemberg Piping and Machine Construction worked to create a new module design on the specified PureBallast 2.0 skid. The prerequisite from IHC was that no changes would be needed in the rest of the vessel.

The resulting design has exactly the same skid, inlets and outlets as the modules aboard the Sapura Diamante and the Sapura Topázio, which allows the system be placed and connected according to the original specifications. Yet Sapura Navegação Marítima will have access to the large energy savings made possible by PureBallast 3.0.

#### **Added value without added work**

The first of the PureBallast 3.0 modules was delivered by Leemberg Piping and Machine Construction to IHC in January 2014, with another following later in the year. The final module is scheduled for delivery in January 2015.



Alfa Laval PureBallast 3.0 - 500 m<sup>3</sup>/h.

#### **How to contact Alfa Laval**

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