Continuous R&D yields major size reduction in the PureSOx U-design

**As of 1 May 2016, the Alfa Laval PureSOx scrubber is available in a U-design with greatly reduced dimensions. The improvements, which further increase the U-design’s flexibility, were announced around the same time as a date for decision on the 2020 global fuel sulphur cap.**

“We have a strategy of continuous development for the Alfa Laval PureSOx platform,” says René Diks, Manager Marketing & Sales, Exhaust Gas Cleaning at Alfa Laval. “We launched our inline I-design in December 2015, and we are pleased to follow it so soon with significant advances in our U-design.”

**Smaller due to optimized flow and pressure**

The PureSOx U-design, which is used on the majority of vessels, is a U-shaped configuration where the jet and absorber sections are separated by a natural water trap. In the updated version, available from 1 May, the exhaust gas flow through the scrubber has been heavily optimized. This allows a dramatic reduction in scrubber height – 26% in the jet section and 17% in the absorber section – as well as a reduction in weight.

A key factor in achieving the reductions was the minimization of back pressure, which has been done entirely without exhaust gas fans. “Avoiding additional equipment high up in the funnel is advantageous for maintenance and stability,” says Diks. “All advances in the PureSOx U-design, including the reduced back pressure, have been made by working with the exhaust gas flow itself.”

**Cost savings and improved stability**

The reduction in size and weight adds to the advantages of the PureSOx U-design, which include the natural water trap, simple connection to multiple inlets and easy switching between open-loop and closed-loop modes. A smaller scrubber facilitates placement and reduces installation costs, while a lighter scrubber reduces the impact on vessel stability. In some cases, the smaller U-design may also be placed lower in the ship, which will have further stability benefits.

“The improvements make it even clearer that the choice of U-design or inline I-design is not specific to vessel type,” says Diks. “A scrubber should be customized for the vessel it serves, and the new U-design makes the PureSOx customization process more flexible.”

**Movement on a global fuel sulphur cap**

Coinciding with the arrival of U-design improvements is a renewed sense of urgency surrounding SOx scrubbers. At MEPC 69, which convened in London in late April, it was agreed that the question of a global 0.50% fuel sulphur cap would be resolved at MEPC 70 in October. Whether the cap appears in 2020 or 2025 will hinge on a study by CE Delft, which will report on the availability of low-sulphur fuel. The study, prescribed by MARPOL Annex VI regulation 14.8, is being supervised by a steering committee consisting of member states, non-governmental organizations and one intergovernmental organization.

“It is impossible to speculate on the outcome of the study or of MEPC 70,” says Diks. “But scrubber technology will be considered in assessing the adequacy of the fuel supply. PureSOx has shown that SOx limits can be met reliably, even without low-sulphur fuel.”

To learn more about Alfa Laval PureSOx and Alfa Laval’s approach to exhaust gas cleaning, visit www.alfalaval.com/puresox

**For further information, please contact**:

**René Diks**
Manager Marketing & Sales

Business Unit Exhaust Gas Cleaning
Alfa Laval Nijmegen BV, The Netherlands

**Phone:** +31 24 352 3180

**E-mail:** rene.diks@alfalaval.com

[www.alfalaval.com/puresox](http://www.alfalaval.com/puresox)

**Anne Kirstine Senderovitz**

Communication Manager and VP

Marine & Diesel Division, Alfa Laval

**Phone:** +45 51 23 45 56
**E-mail:** annekirstine.senderovitz@alfalaval.com

[www.alfalaval.com/marine](file:///C%3A%5CDocuments%20and%20Settings%5CSETUASA%5CMy%20Documents%5CAlfa%20Laval%5CMMD%5CProducts%5CPureSOx%5CPress%20release%5C2012-02-03%5Cwww.alfalaval.com%5Cmarine)

**About PureSOx**

As a complete platform for exhaust gas cleaning, PureSOx can be tailored to any sailing profile and physical constraints of a vessel. Open-loop, closed-loop and hybrid arrangements are all available, as well as scrubbers with a U- or an I-design.

U-design

The PureSOx U-design, which is used on the majority of vessels, is a U-shaped configuration where the jet and absorber sections are separated by a natural water trap.

I-design

In the PureSOx I-design the absorber section is located atop the jet section. This configuration is particularly interesting for vessels with more complex structural needs, such as certain cruise ships and RoPax vessels.

**About Alfa Laval**

Alfa Laval is a leading global provider of specialized products and engineering solutions based on its key technologies of heat transfer, separation and fluid handling.

The company’s equipment, systems and services are dedicated to assisting customers in optimizing the performance of their processes. The solutions help them to heat, cool, separate and transport products in industries that produce food and beverages, chemicals and petrochemicals, pharmaceuticals, starch, sugar and ethanol.

Alfa Laval’s products are also used in power plants, aboard ships, oil and gas exploration, in the mechanical engineering industry, in the mining industry and for wastewater treatment, as well as for comfort climate and refrigeration applications.

Alfa Laval’s worldwide organization works closely with customers in nearly 100 countries to help them stay ahead in the global arena. Alfa Laval is listed on Nasdaq OMX, and, in 2015, posted annual sales of about SEK 39.7 billion (approx. 4.25 billion Euros). The company has about 17 500 employees.

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