

ACO UV Deodourisation Unit

Product Catalogue

How the system works

With UV-C/ozone-based air cleaning technology, waste air flows directly behind the source of smell (i.e. Holding Tank, Sewage Treatment plant) through special lamps (ozone fluorescent lamps) that release UV-C radiation and active oxygen (ozone = O₃).



Irradiation of polluted air causes photooxidation (= cold combustion) of organic substances such as fat and other odour agents. Excess ozone is naturally converted back into oxygen. The residues are fully biodegradable and are removed with the waste air stream.



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Maintaining a clean environment onboard of every vessel contributes not only to a pleasant ambiance, but also plays a crucial role in safeguarding the health and well-being of both, crew and passengers.

Odours generating at wastewater treatment plants, sludge tanks, collecting tanks, or grey water tanks can be particularly unpleasant. Often a sideproduct of bacteriological or biological processes, these odours, if not addressed, can permeate the ship, leading to discomfort and potential health concerns.

The ACO UV Deodourisation Unit is meticulously designed to tackle these odours at their source, ensuring a fresh and odour-free environment onboard.

ACO UV Deodourisation Unit
Online information



Three-stage odour neutralisation

A standout feature of the ACO UV Deodourisation Unit is its three-tiered approach to odour neutralisation:

1

ACO UV Deodourisation Unit

Air from tanks is drawn into a chamber with UV lighting. Here, light reflects from UV-C radiation, dissolving odours produced by bacteriological pollutants. The UV lamps also generate a low concentration of ozone, enhancing the decomposition process. This component is supposed to be installed as close to the source of the odour as possible.



2

ACO Carbon Tank

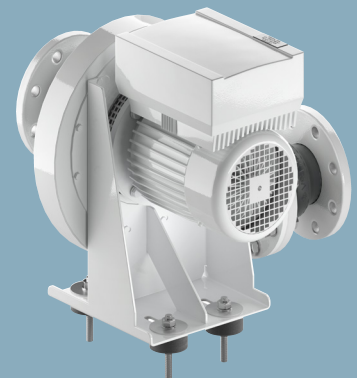
The unit contains filter chambers with a granulated active carbon that effectively absorbs and neutralises odours. This component is supposed to be installed as far as possible from the source of the odour, usually on the upper deck. To eliminate odour and ozone residues activated carbon acts as a reaction surface for long chain molecules and residual ozone.



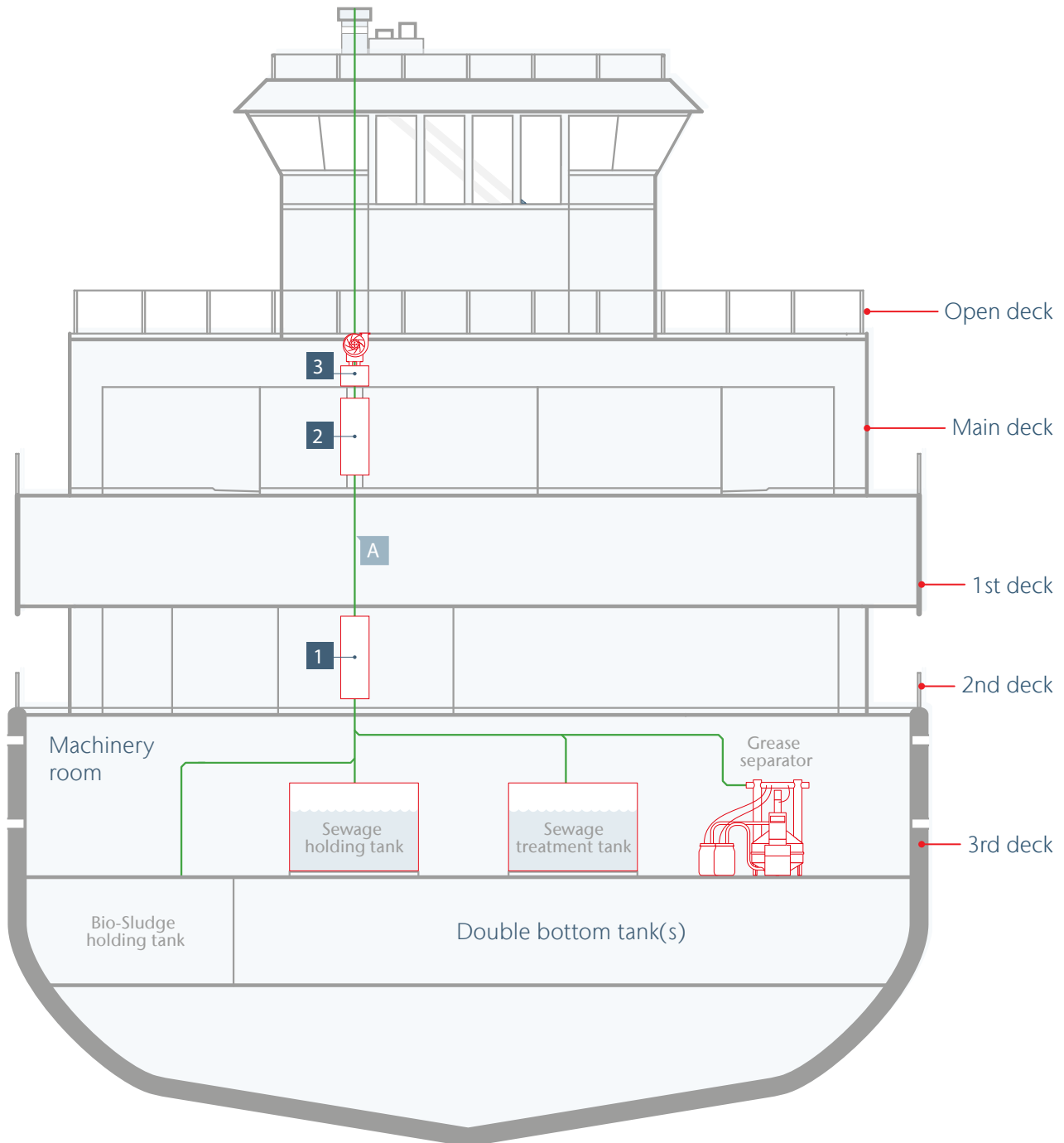
3

ACO Vent Extraction System

The vent extraction fan installation is in the upper part of the ventilation system, close to the funnel. With the help of an extract fan, the purified air is drawn outside the vessel and at the same time prevents the ozone produced from falling.



Ship cross section



- 1** ACO UV Deodourisation unit
- 2** ACO Carbon tank(s)
- 3** ACO Exhaust fan

A ——— Ventilation system



Advanced Control System

ACO UV Deodourisation Unit

The functionality of the entire system is controlled by the ACO control cabinet provided, which can be integrated with the ship's control and monitoring system

All components are manufactured from high quality materials and components, specifically selected to meet high quality standards required for installation on board of cruiseliners and large yachts.

Systems specification

Deodourisation system is always specified according to project specific parameters. For optimal system specification contact ACO Marine Engineering Department who will be pleased to work together with you to specify the most functional and reliable solution.

ACO Marine Contacts
Online information



Every ACO product supports
the ACO WaterCycle



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- Marine Drainage
 - Vacuum System
 - Push Fit Pipe System
 - Wastewater Treatment Plants
 - Grease Management
 - Lint Filter
 - Tanks
 - Lifting & Transfer Stations
 - UV Deodourisation Unit
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