



Focus on Practical Filter Testing and Further Development

November 7th 2017 | At the end of June, HYDAC transported its Process Filter Test Cube from Bremerhaven to the Royal Netherlands Institute for Sea Research (NIOZ) at Texel Island

In order to perform a wide spectrum of third-party certified tests at a world-renowned ballast water test facility, HYDAC has transported its Process Filter Test Cube from Bremerhaven, Germany to Texel Island in the Netherlands at the end of June 2017. The Process Filter Test Cube is normally operated at HYDAC's demonstration and R&D facility in Bremerhaven at the Weser estuary at Kraeft Systemtechnik GmbH.



“To HYDAC it was important to bring our Process Filter Test Cube to the next level to further test existing filter systems“

Head of R&D at HYDAC Process Technology

The Royal Netherlands Institute for Sea Research (NIOZ), the National Oceanographic Institution of the Netherlands, has long been a global leader for testing ballast water treatment systems (BWTS). Earlier in 2017, NIOZ and Control Union created a new spin-off company, Control Union Water B.V. (CUW), for commercial BWTS certification. CUW offers inspection services on a global level and is certified by the USCG as an official independent laboratory for BWTS approvals. CUW worked with HYDAC's engineers on a full suite of aggressive tests of the Process Filter Test Cube with various ballast water scenarios.

“To HYDAC it was important to bring our filter test cube to the next level to further test existing filter systems, such as AutoFilt® RF10, as well as our new automatic filter, AutoFilt® RF14, under challenging conditions – by an independent third party”, said the head of R&D at HYDAC Process Technology GmbH. The CUW facility offered HYDAC the opportunity to transport its complete filter test cube to their premises and operate the system at the newly constructed Pelagia quay from the end of June to the middle of October 2017. Teams of engineers worked around the clock for several weeks on these tests and the results were remarkable.

CUW and HYDAC conducted numerous tests of HYDAC's Process Filter Test Cube including biological efficacy in marine and fresh water and sediment load tests using different types of sediments.



“The results both in biological removal efficacy as well as in numerous Shanghai filter testing were impressive. By surpassing the 1000 mg Shanghai TSS/L bench mark, a new record with fine filtration has been set.”

Dr. Louis Peperzak, Test Facility Director
at Control Union Water B.V. Partner of NIOZ

CUW was able to simulate various types of artificial and natural sediments in concentrations that far exceed the International Maritime Organization's requirements. Even the fresh water tests, which required an external barge with fresh water from lake Yssel, went without complications. The so-called Shanghai-Tests are a specialty of CUW, as CUW has analyzed the particle size distribution of total suspended solids (TSS) from Shanghai harbor and is able to reproduce comparable TSS at realistic concentrations at their test facility.

HYDAC is very pleased to have tested their Process Filter Test Cube at CUW as it gives them independent filter performance data that validates the significant amount of data they had gathered for more than a year at their facility in Bremerhaven.

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