

**1000th
FILTER**

At home on the world's oceans

HYDAC is selling its 1000th ballast water filter from the AutoFilt® series

In December 2015, the HYDAC Process Technology plant in Neunkirchen will be dispatching its 1000th ballast water filter. A milestone for the automatic back-flushing filter production of the internationally active company association with over 8000 employees, 50 branch offices 500 distribution and service partners worldwide.



Since its market launch in 2011, the HYDAC AutoFilt® RF10 has been the filter of choice for numerous ballast water system suppliers. As part of the AutoFilt® product family, the RF10 is continuing a success story that has been going strong for over 30 years.

The AutoFilt® RF10 is distinguished by its special hydrodynamic suction effect, the "JetFlush". This patented technology means that the AutoFilt® RF10 no longer relies on pressure on the clean side of the filter. A crucial feature for system suppliers and shipowners, given that installation and retrofitting conditions on board tend to be difficult.

Across the globe, HYDAC has gained a reputation as being the one of the world's leading producers of ballast water filters.

With its own production sites in Europe, China, Korea and India and a global distributor and service network, HYDAC is especially well equipped for the increasing demand in the Asian markets.

The product range includes filters for all types of ship – in particular ships with large ballast water capacities such as VLCCs and tankers.



Ballast water is used to stabilise ships on the high seas. As the ship travels across the sea, millions of plant and animal organisms caught up in the ballast water are transported from one port to another and then released into a foreign habitat. This releases non-native species into sensitive ecosystems where they can cause harm.

The Ballast Water Management Convention was adopted by the International Maritime Organization (IMO) back in 2004. To enter into force, the convention needs to be ratified by at least 30 states representing at least 35 % of the world's tonnage. The convention has so far been signed by 44 states with a tonnage of 32.86 % (as of October 2015).

HYDAC
PROCESS TECHNOLOGY GMBH
Industriegebiet Grube König
Am Wrangelflöz 1
D-66538 Neunkirchen
Tel. +49 (0)6897 509-1241
Fax +49 (0)6897 509-1278
eMail: prozess-technik@hydac.com
Internet: www.hydac.com

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8 Questions about Ballast Water

Jörn Kaiser, Head of Product Management Ballast Water | HYDAC Process Technology GmbH

„If we are looking towards the future with potentially even stronger requirements, it is my opinion that filters will play an even bigger role than they do now.“

1. The ballast water convention is close to ratification - how does HYDAC plan to keep up with the rising demands in terms of production capacity?

JK: HYDAC, with its global presence, is well prepared for an increase in demand. Firstly because we handle already large amount of filters for years and we are not a start-up company. The supply chain is secured and the production is well setup. In addition, we have different locations worldwide, where we already manufacture ballast water filters for local customers, such as South Korea or China.

2. How important do you consider the independency of the outlet pressure?

JK: Filters are pressure driven systems. It means either way, they require a pressure difference in order to clean out contamination. Most conventional filters use the outlet pressure for cleaning. The trouble with that is that the outlet pressure drops with rising contamination. This may become an obstacle if the pressure differential rises too quickly and the outlet pressure drops. Of course, there are means to compensate, such as using pressure regulation valves in the event of back-flushing. However, there is always a risk during sudden dirt peaks that the outlet pressure drops too much and the cleaning efficacy is decreased significantly.

3. Why do you think the AutoFilt® RF10 will be the right solution for ballast water applications?

JK: First of all, we still think that if installed and operated correctly in terms of automation, that also our AutoFilt® RF3 and RF7 are the right solution for ballast water. However, as mentioned, the AutoFilt® RF10 offers additional benefits compared to conventional filters. The independency of the outlet pressure is a key benefit. In addition, this filter has been developed only for the ballast water market, while other filters have been adapted to meet the requirements of this market field.

4. How do you evaluate the use of Filters within a BWTS? Are they necessary?

JK: It depends on who you ask. If we ask manufacturers of ballast water treatment systems who have been approved without filters, they are probably not required. But looking at the facts and how many systems use filters, they certainly help to either reduce power consumption or the size of the disinfection system. If we are looking towards the future with potentially even stronger requirements, it is my opinion that filters will play an even bigger role than they do now.

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**1000th
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JK: *If filters are used they are one of the key components in a BWTS. If the filter fails e.g. due to breaking mesh, a disinfection system that has been sized under the condition that there is a pre-filtration, will not achieve the D2 standard of the IMO regulation. Therefore we use for instance sintered mesh, which is very stable and offers reliable retention rates over the lifetime. So, to answer the question, if a filter is used, the performance of the whole BWTS depends on the reliability of the filter as well.*

6. What do you think is the most important requirement in the ballast water industry?

JK: *We have to remember that ballast water treatment systems have no return on invest for ship-owners. So one of the key issues for this industry are the costs of a system – both CAPEX and OPEX. Reliability of a system is another key issue. The system (and thus a filter) has to work where the ship has to ballast. If I were a ship-owner it would be important to me if a supplier of either a BWTS or a filter had a global presence, e.g. for service or availability of spares if needed.*

6. There are a lot's of requirements towards the Filters, are there requirements towards the Operators, as well?

JK: *Clear answer: Yes, there are requirements for operators. Ballast water treatment is not a 24/7 operation as typical in the onshore industry. The system is switched on and off when needed. For filters it is for instance important how they are handled during system down-times. Thus the recommendations of the filter manufacturer should be fulfilled – same as with your car.*

8. Please describe in a few words, why HYDAC is the right partner within the Ballast water industry?

JK: *Reason number one is of course that I think HYDAC has ideal products for this market. We have experience in water filtration for more than thirty years and in ballast water for more than ten years. We are not new to this kind of business. Our global presence with more than 50 branches as well as several manufacturing plants is another reason. HYDAC is a broad-based group of companies and sells components and systems in all fields of industrial and mobile hydraulics. Our innovative strength is characterized by a close cooperation with research institutions and universities, it is also apparent from the large number of HYDAC patents and makes us a reliable partner.*

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