



HiFlux Filtration A/S

Growing pains for self-cleaning filters used in water treatment

Post-treatment of water in large quantities is a must in many contexts. This important filtration process is being paid more and more attention because of environmental considerations and optimisation of operations – and the solutions are growing in size.

HiFlux Filtration's 2017 introduction of their biggest water treatment filter to date took place against the background of growing demand from several groups of customers, with the waste water sector, the food industry and manufacturing sector all showing a large amount of interest in automated water filtration with large flows. Just over four years on, the global filter producer from Hedensted, Denmark, is able to say that demand has increased considerably as treatment plants, special machines and production lines are built bigger and bigger.



The fully automatic VLR Auto-line filter has a flow of more than 700 cubic metres an hour and an obvious choice for water treatment in several industries.

Downtime? No thanks!

Protecting components such as nozzles, valves, measuring equipment and heat exchangers is one reason for large fully automatic filters' gain in popularity. Mud and dirt particles in the water can lead to the equipment clogging, resulting in stoppages that mean unwelcome and costly downtime. The cooling water industry's demand for efficient filtration solutions has not gone unnoticed by the East Jutland filter specialist. As Niels Vestergaard, sales engineer at HiFlux Filtration, explains,



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optimal usage of technical water is on companies' radars more than ever, and filtration is one of the means through which this can be achieved.

Huge consumption of cooling water

"When it comes to water treatment, the developments are clear to see. Huge quantities of cooling water are used in production plants nowadays; the plants are getting bigger and bigger and more and more automated, and the filter solutions that are being developed reflect this," Niels Vestergaard tells us, adding that the incentive to replace manual bag filters with self-cleaning filters has only really increased in the past five years. Automation plays a crucial role here too, in his opinion.

"Many technical managers do not see the point of cleaning bag filters manually when the rest of the production line can run 24/7 without any human intervention."



More and more orders of filters for water treatment are being placed. VLR filter housings stand ready for further integration in production at HiFlux Filtration in Hedensted.



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Bigger is better

The fully automatic Auto-line filters from the Hedensted-based company are installed around the world. They are always adapted for the job in question, with the waste water sector being no different from other sectors: the focus here is on large-flow filtration too. When the VLR (Very Large Rotation) filter was launched, it had a flow that was three times as big as the existing filters in the range. It can process more than 700 cubic metres of water an hour, optimising operation, water consumption and sustainability thanks to the minimal return flush. The filter's scraper system operates at a range of 1000 micrometres down to 100 micrometres, meaning that even the smallest of impurities in the water are eliminated. As such, the VLR solution meets all treatment plant requirements i.e. filtering and utilising water while also factoring in the need for green energy.



Huge amounts of cooling water are used in Danish industry. Filtration is necessary to prevent technical components from clogging with dirt and particles. The VLR filter has been developed to accommodate demand for a large flow.



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Several filters at once

“The specifications for efficient waste water systems are simply getting bigger and bigger. In the future, even more water is going to be treated and output, while rainfall amounts will also increase.

There are challenges ahead which are going to make large-flow filtration even more relevant. Our solutions are not used in the discharge of the waste water itself, but rather when the water needs to be utilised and recycled in a sustainable way,” Niels Vestergaard explains, before mentioning that they are about to install five customised VLR filters as part of the expansion of one treatment plant in the Nordic countries. The filtered water is used for heat recovery, with the purpose of the filtration itself being to prevent heat exchangers from clogging.

Development to continue

Niels Vestergaard is in no doubt about the potential going forward for filtration of water with a large flow. Although the very-first VLR filter units were sold for use in aquaculture on the export market, the manufacturing industry and waste water sector at home in Denmark have now embraced the solution as well. Two of Denmark’s biggest companies have the filter in operation to optimise cooling water, while units with smaller flows are generally being replaced or supplemented with larger solution. That trend is likely to continue well into the future, which will also place demands on the East Jutland filter producer.

An indispensable resource

“We will continue developing innovative self-cleaning solutions. It’s about complying with the customers’ wishes – we try to take all input on board. Water in particular is an indispensable resource in all industries, although also one in scant supply when looking at the bigger picture. All measures count, and that includes filtration,” Niels Vestergaard finishes.

About HiFlux Filtration A/S

HiFlux Filtration A/S supplies customised filter solutions to a broad cross-section of industry. The company focuses on developing and manufacturing liquid filters, with a product range consisting of more than 20,000 options suitable for combination. Consulting, troubleshooting, assembly and servicing are all important elements of the company’s business. HiFlux Filtration A/S has distributors across all of Europe, as well as a subsidiary in the Netherlands.