

Diffuser cleaning & maintenance

OPTIMIZE THE PERFORMANCE OF YOUR MEMBRANE & CERAMIC DIFFUSERS



Improve performance and reduce energy costs

Sanitaire diffusers are designed to provide efficient and reliable biological treatment of wastewater. However, fouling and scaling have a significant negative effect on diffuser performance over time, which result in less effective treatment and rising energy costs.

The solution is simple – ensure that your diffusers are cleaned regularly. In the past this could often be a cumbersome and costly process, but the good news is that Xylem has developed a new cleaning technology that makes it easy and economical.

What it is

As part of the TotalCare offering, Xylem has developed a portable liquid cleaning process that is executable for both membrane and ceramic diffusers within Sanitaire and competitor installations. The major advantage of Xylem's new system is that it runs while the diffusers are in operation. There is no longer any need to drain basins or remove system components – only simple modifications to the existing air piping are required. The cleaning process is fast and efficient, and your wastewater treatment equipment will not experience any disruptions.

How it works

A Xylem-authorized service technician brings the portable cleaning equipment to your facility on the appointed date. Prior to cleaning, the technician will calculate the duration and concentration of cleaning required for each grid through Xylem's cleaning analysis tool. Once the cleaning is complete, a full report will be provided. The report will consist of data related to the efficiency improvements as a result of the cleaning. Other efficiency gain recommendations will be presented, such as a forecast for the next liquid diffuser cleaning. In the case of membrane diffusers, Xylem will also provide a recommended time frame regarding their replacement requirements.

Why Xylem TotalCare

When you work with Xylem TotalCare services, you get secure, optimal operations that come only with broad engineering expertise in water and wastewater.

- Minimize energy costs at the same time that you maximize system performance
- Reduce risk of process consent failures
- Extend the product lifecycle of both membranes and ceramic diffusers

Case study

CHALLENGE: To restore the performance of Sanitaire 9" ceramic disc diffusers in the wastewater treatment plant of an industrial food and beverage company in Iowa, USA, where CaCO₃ scaling was clogging the pores of the ceramic diffusers and causing additional back pressure on the blowers.

SOLUTION: Xylem used its new cleaning technology to remove the scaling and the plant achieved over 85% recovery. The system is back to normal operating pressures and energy costs have been greatly reduced. The customer has scheduled Xylem to come for cleaning visits once a year.

Price

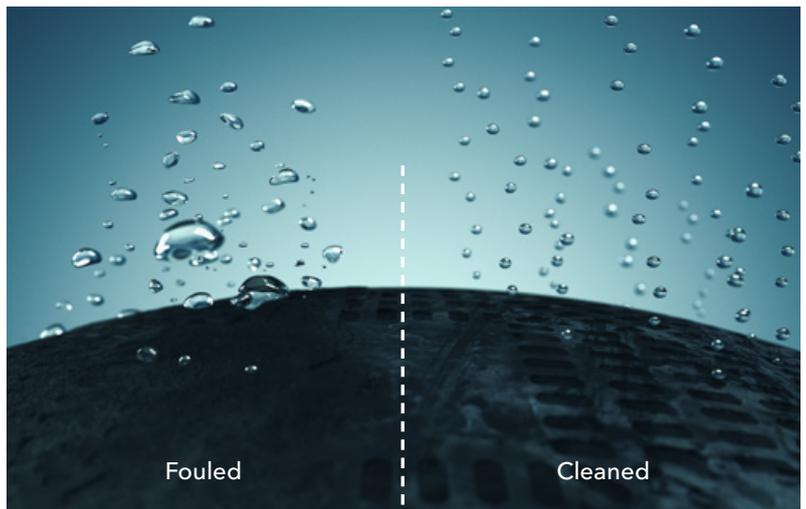
The price for the cleaning service depends on the size of your system and the number of hours that the cleaning equipment is in operation. The cleaning service can also be included as part of a TotalCare preventive maintenance agreement (PMA).



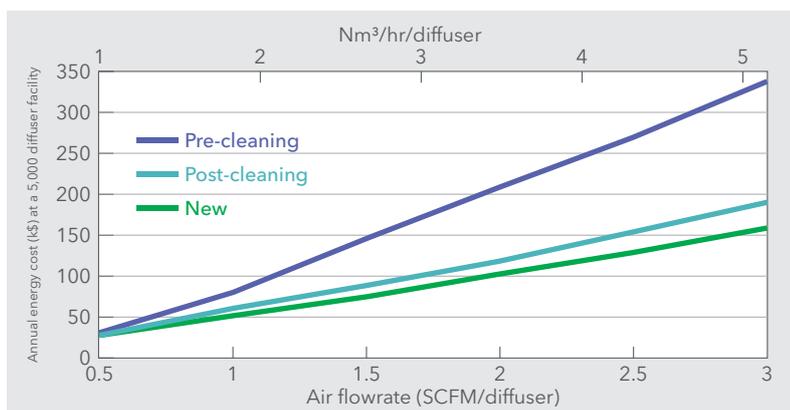
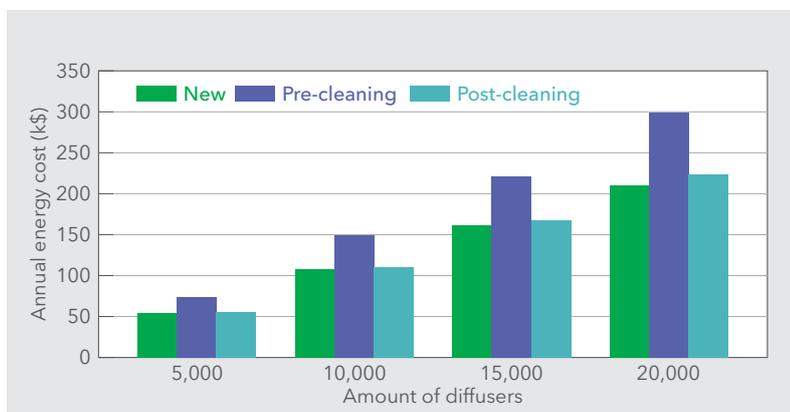
Why it makes sense

Biological-secondary treatment is the most energy-intensive phase in the wastewater treatment process, with aeration consuming between 25 and 60 percent of the total energy used in a municipal plant. There is great potential to save energy - and money - by ensuring that the system is running as efficiently as possible.

Regular cleaning and maintenance of your diffusers will ensure optimal equipment performance, consistently effective treatment of your wastewater, and substantial energy savings. It's a win-win situation for the environment and for your budget.



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Five signs that it's time to clean your diffusers

1. More air is required to maintain process performance.
2. Residual DO levels are decreasing or are too low.
3. The back pressure at the blowers is increasing.
4. There is a year-on-year increase in the energy consumption of your blowers.
5. Your blowers are unable to produce enough air to meet DO requirements.

If any of the above applies it is time to consider cleaning your diffusers.



What can Xylem do for you?

Call +46 8 475 6000

www.xylem.com/totalcare



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