



ADVICE FOR THE PROPER OPERATION OF ZUK-O-PUR LF FIXED

Zuko offers an annual maintenance contract (on-demand standard contract) covering some of the following points; breakdowns and spare parts are extra. A maintenance report is always attached to your invoice so it can be attached to the application for a wastewater tax rebate. If necessary, maintenance can be carried out by the owner of the installation.



1. Make sure the blower is working normally. Replacement of the membranes (small WWTU) must be considered after between 15,000 and 25,000 hours of operation at the earliest, or if reduced aeration is observed.
2. The air filter must be checked and cleaned or replaced if necessary.
3. The air pipes must all be connected (without leaks).
4. The diffusers must be checked regularly (once every 12 to 24 months) and replaced at the end of their useful lives (between 7 and 15 years).
5. The proper operation of the event alarm will be checked.
6. The clock setting must be checked as appropriate.
7. The normal colour of the fixed biomass on the supports ranges from light brown to dark brown. It looks like a deposit of a thin layer of sludge. If there is too much sludge or an abnormal colour is noticed then contact our technical service.
8. If there is a smell problem, it is generally due to a fault in points 1 or 2, to overloading or to biocide discharge in the plant. You are recommended to call our technical service to solve any problem as quickly as possible.
9. Treated water must always appear clear and be odour-free (at most a smell of compost).
10. Emptying must be carried out in time by a certified emptier. Annual emptying of the sedimentation compartments should be anticipated at full load. Emptying should always be anticipated if the floating layer in primary sedimentation is hard or is of the order of 10 cm or more. Care must be taken not to damage the air feed hoses when emptying. If necessary, they must be dismantled (careful with the joints) after the installation has been turned off. Secondary sedimentation will be emptied only exceptionally for the 6-9 and 7-10 models. It is recommended to leave a residue of sludge (5 to 10 cm) in primary sedimentation (pre-clarification). The emptied compartments will immediately be filled with water again after emptying to keep the plant working properly. The blower will be switched on again if it had been turned off.
11. It is possible to walk on the fixed biomass blocks but prevent having too much sludge sticking to your boots.
12. Complete removal of secondary sedimentation sludge to the primary sedimentation tank must be carried out properly (not installed in models 6-9 and 7-10). Insufficient removal will reduce the effectiveness of the plant.
13. No bactericide products (e.g. fungicide, pesticide...); hydrocarbons (oil, petrol...), acids (hydrochloric acid, spirit of salt, sulphuric acid...) or strong bases (caustic soda, concentrated ammonia...), paints (including water-soluble paints) or brush rinsing water, organic solvents (thinner, white spirit...), etc. must be discharged to the plant. It must be understood that the discharge of these products will reduce or completely halt the treatment process. The smaller the plant, the greater the effect these products have. Treatment will generally begin again after a certain time, in the same way that treatment starts naturally when the plant is first started up; added bacteria can speed up the process. At worst, it will be necessary to empty one or more chambers.
14. Regeneration water (high chloride concentration) from a water softener, if any, (there are methods that are just as effective without adding chemical products) will therefore be taken directly to the outlet: the chlorides dissolved in this water will effectively reduce the activity of the biomass. It does not normally contain any organic pollution.
15. The discharge of waste that is difficult to biodegrade or non-biodegradable, such as certain cardboards and paper containing synthetic fibres (disposable cloths, absorbent paper...); all synthetic material waste (plastic, vinyl...), tissues, wood, rubber... must be avoided in the drainage system. This waste belongs in bins or containers, together with used frying fat, for example!

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- 16.Finally, you are advised to use only highly biodegradable maintenance products; they are generally identified as “compatible with septic tanks”. Zuko offers some of these products within the range of services offered.
- 17.The unblocking of drain pipes from the building leading to the plant must be carried out using mechanical means or using enzymatic products; if necessary, Zuko can get you this type of product. Products based on caustic soda or strong acids are prohibited.
- 18.The installation’s manhole cover must always remain accessible for checks and maintenance.
- 19.Samples making it possible to demonstrate the installation’s compliance may be taken in secondary sedimentation (in this case the analysis is carried out on a sample sedimented for 1 to 2 hours in order to eliminate sedimentable particles that could have polluted the sample at the moment it was taken) or at the outlet of the installation before any mixing with rainwater (or in dry weather). Analysis fees are always paid by the user.

We suggest you check points 1, 4, 6 and 8 quite regularly in order to detect any operational fault in time.

As a reminder, the daily pollution load of a Population Equivalent (EP) is defined as followed:

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| • Volume | = 150 l/day/PE |
| • BOD (= Biological Oxygen Demand) | = 60 g BOD/day/PE |
| • COD (= Chemical Oxygen Demand) | = 135 g BOD/day/PE |
| • SS (= Suspended Solids) | = 90 g SS/day/PE |
| • Total N (= Total Nitrogen) | = 10 g Tot N/day/PE |
| • Total P (= Total Phosphorus) | = 2 g Tot P/day/PE |
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