



# ClearFox<sup>®</sup> TBZ technology

water recovery in the  
vehicle washing technology

# ClearFox® TBZ technology for water recovery in the vehicle washing tech

In the car wash technology obsolete water purification systems are still used in many cases. For most sand-filter, also called gravel filter, from the swimming pool equipment. The use of sand or gravel filter in the area of swimming pool water is no problem because swimming pool water contains no biological elements and suspended solids and is also sterilized.

Wastewater from vehicle washing facilities differs strongly of swimming pool water, because it contains much more dirt, floating solids, hydrocarbons and other biologically active elements such as detergents. This deposit flows through the gravel layer in the gravel material and can, due to its sticky surface, are not rinsed again.

This leaves these biologically active substances in the gravel filter and builds up more and more. For longer Downtime of the filter system thus captures the material to ferment and forms a most unpleasant stinky smell. Weaknesses in the sand filters are often the gap-screens, which represent the separation between water flows and filter gravel.

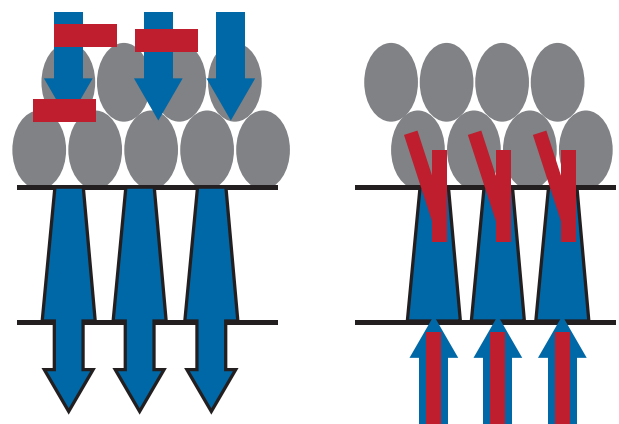
What the flushing of the filter gravel with flow reversal is not a problem in swimming pool water, is the Gravel filter for the vehicle scrubber still a problem. The in the backwash water containing fine particles, such as lint from Abrasion of textile rollers, the gap-screens will be clogged unilaterally and eventually severely restricted the water flow in the gravel filters and even blocked in extreme cases. The filter performance is greatly reduced and the fresh water consumption increases.

## With the ClearFox® TBZ technology these pictures belong to the past:

Silty gravel-filter



Lint clogs gap-screens in sand filters



## Areas of ClearFox® TBZ water recovery system

- Car washes
- Bus and truck washing facilities
- Tram wash systems  
(including copperabrasion, oil and fatadhesions of the bogies)

The ClearFox® TBZ water recovery system is for waste water volumes up to 40 m<sup>3</sup> and is available in three various sizes.

To comply with high flow limits, we offer the ClearFox® TBZ system in compact container system with high performance biology as a fixed bed reactor.



# Technology - splits oil and fat emulsions

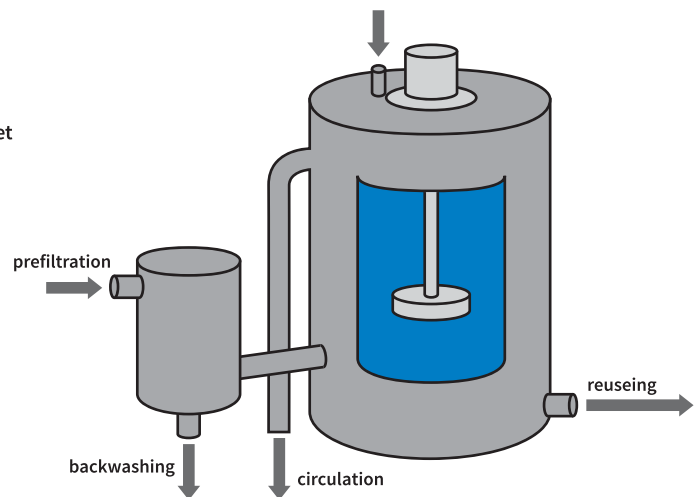
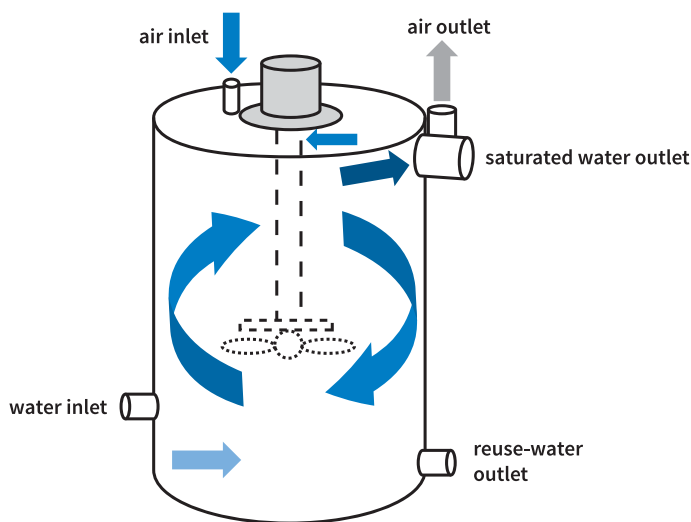
The ClearFox® TBZ water recovery system (CF-TBZ) DIBT approval No. Z- 83.3 -28 is unique because it works like an inverted hydrocyclone.

After prefiltration still be existing micro-particulate matter with backing of fine bubble air (microbubbles) transported in a rotating water flow upward and ejected. The tensides will be oxidized till to Deactivation by circulation. Thus, the tank stays clean, the water is highly saturated with oxygen and the lower part of the tank serves to the wash water withdrawal. It is likewise possible to use a new or an existing water tanks to wash water storage and TBZ for water revitalization and oxidation.

In order to protect the paint of vehicles, there is a fully automatic backwash-filtration-unit upstream, which uses a plug insert material of 100 micrometer. Everything else is done by the CF-TBZ-cyclone.

The CF-high efficiency filter differs fundamentally of conventional sand filters, as the filter body is inside smooth and dirt does not store in it. The filter-baskets are of smooth PP or V4A. The provided insert-filters with 100 micrometer are made of nylon.

As well as periodically during wash cycle for 30 seconds is backwashed and the insert filters pulsate, the filter stays clean and does not allow smelly odors.



## Advantages of ClearFox® TBZ water recovery system

- Up to 90% water recovery
- No odor
- High pollutant degradation
- No chemicals required
- Virtually maintenance-free operation
- Compact design - Low space
- Use of existing tanks, containers and separators possible
- Easy replacement of existing technology



ClearFox® TBZ with reuse water tank up to 40m<sup>3</sup>/h

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OPERATION GUIDE



The ClearFox® technology - corporate network:

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**PRU** water systems

www.**WATERPLAN**.DE

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