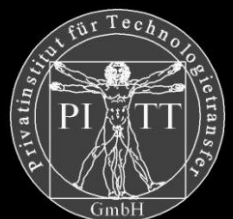


# PITT-AEROS

dissolved air plant

**The innovative water purification  
for car wash**

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## The product

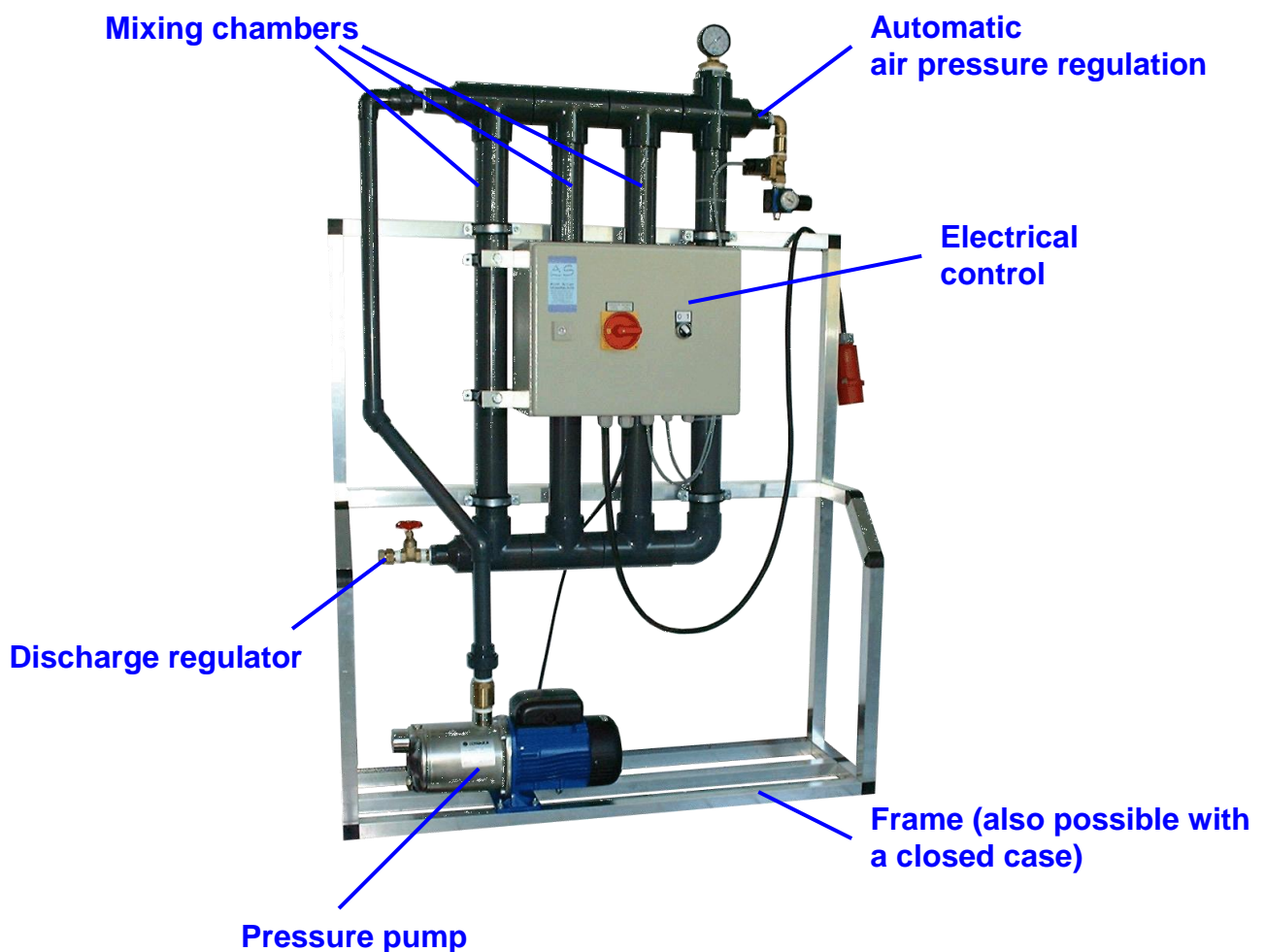
The **AEROS** technology is a europewide renowned system employed for permanent production of dissolved air in waste water.

The **AEROS** uses an innovative and unique way in producing micro bubbles in the water and effectively saturating the water with air.

High quality and long lasting materials insure a reliable use with low maintenance needs. Due to a modular built up a multiple use is possible. The **AEROS** can be used as a stand alone version to eliminate bad odours in wash points as well as a main module in big DAF plants (dissolved air flotation).

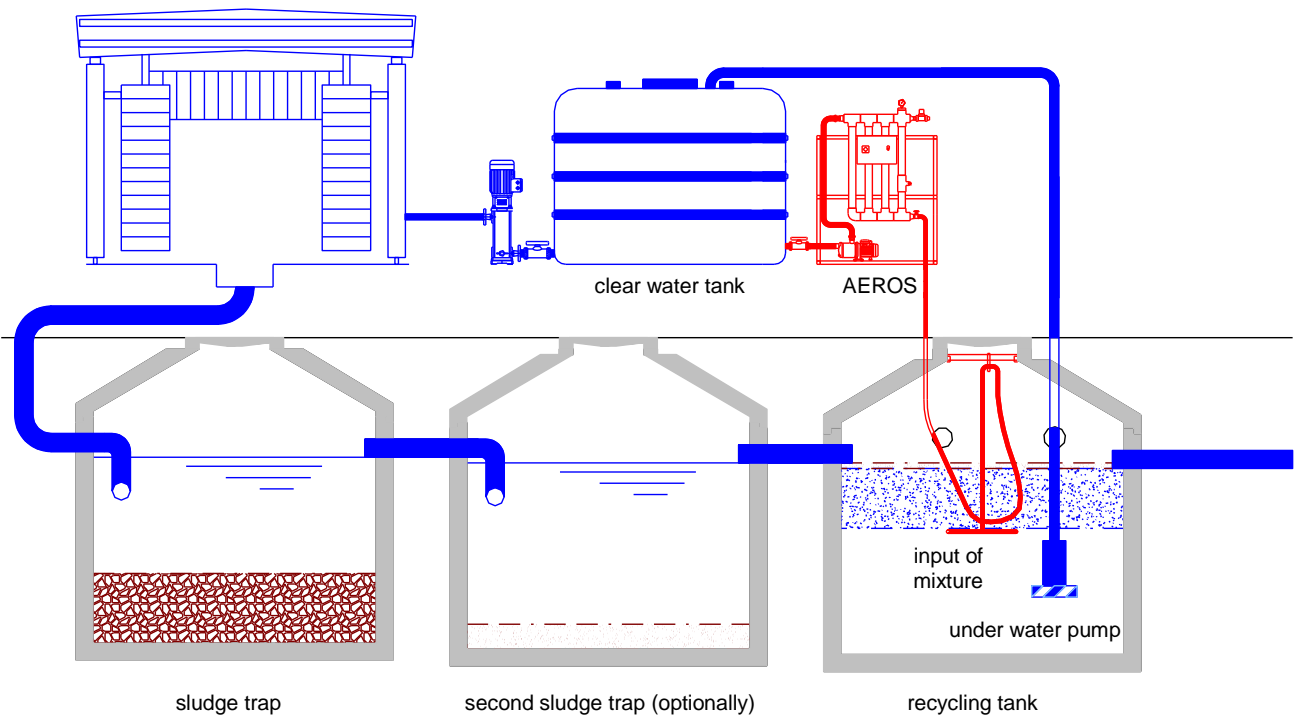
Developing the **AEROS** it was our intent to insure an ecological and economical way of use. For example, when using the **AEROS** in wash points up to 100. 000 car washes per year the energy need is as low as 900 up to 1.100 Watt.

## Subassemblies of AEROS



# The procedure

## Application wash point



The waste water first flows to the first sludge trap where the most bigger size mud is sedimented.

Then the water flows further to the second sludge trap (if needed), where more smaller sized mud is separated by sedimentation.

After this the water comes to the recycling tank where an under water pump brings the water to the clear water tank. From here the water for the washing process is pumped to the wash portal by a pressure pump.

The **AEROS** system takes also water out of the clear water tank and saturates this water with air.

Then this saturated water is brought to the recycling tank by a certain jet system in a special way that guarantees long lasting bubbles. Due to the depressuration while taking the water to the tank, tiny microbubbles with a diameter of 30 to 60  $\mu\text{m}$  develop.

All small pieces of mud or other substances in the water adhere to the micro bubbles and float up to the surface where a bubble carpet develops.

In the bottom section of the recycling tank develops a clear water zone from which the water for the washing process is pumped to the upper take off tank.

This bubble carpet flows over the recycling tank into the drain canalisation when additional water is brought to the system. Thus the tiny particles like mud or oil are effectively brought out of the system.

## Technical data

Needed space (height, width, depth):	1.400, 1.200, 400 mm
Electrical energy need:	400 V, 1.100 W / 230 V also possible
Volume rate:	4.000 l/h
Total volume treated:	30.000 l
Pressure:	about 6 bar absolute

## Other applications

Due to the modular construction a big variety of applications is possible. Very often the system is used in wash points where all advantages of the **AEROS** system can unfold effectively as reducing bacteria, eliminating bad odours, floating out the tiny substances.

Further more the **AEROS** system can be used as a main module for a big "DAF" (dissolved air flotation).

In this case two kinds of constructions can occur.

1. Using the main stream process the whole amount of waste water is pumped across the **AEROS** system. Using this process chemical flocculant can be added to crack off emulsions.
2. Using the bypass process the **AEROS** system is just used to produce the micro bubbles. Hereby a defined part of the water with the produced micro bubbles is mixed with the main stream.

The **AEROS** has a capacity from 3 m<sup>3</sup>/h to 40 m<sup>3</sup>/h. To germinate the recyclingwater it can also be combined with the **UV-Cleaner**. Please ask our experts.

