



ConCleanPlus®

Profiled Plate Aerator



*Removal / reduction of carbonic acid,
Removal of iron, removal of manganese (oxidation)*



WASSER BAU GESELLSCHAFT



Product Information
Profiled Plate Aerator/
Corrugated Sheet Percolator

WBG - ConCleanPlus®

Profiled Plate Aerator (Corrugated Sheet Percolator)

As a preliminary stage for the further treatment of water in different sectors profiled plate aerators are an efficient solution. Apart from the reduction of carbonic acid and chlorinated hydrocarbons corrugated sheet percolators are particularly suitable for well water with undesired iron and manganese contents.

WBGConCleanPlus® profiled plate aerators are being used where corrosion and deposits on equipment and pipelines have to be minimised.

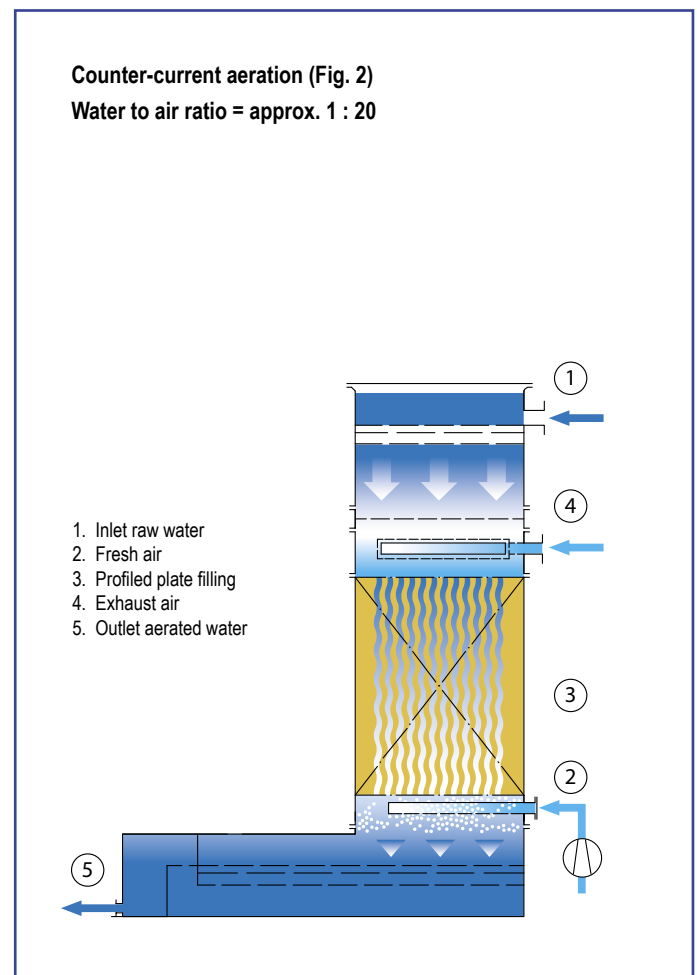
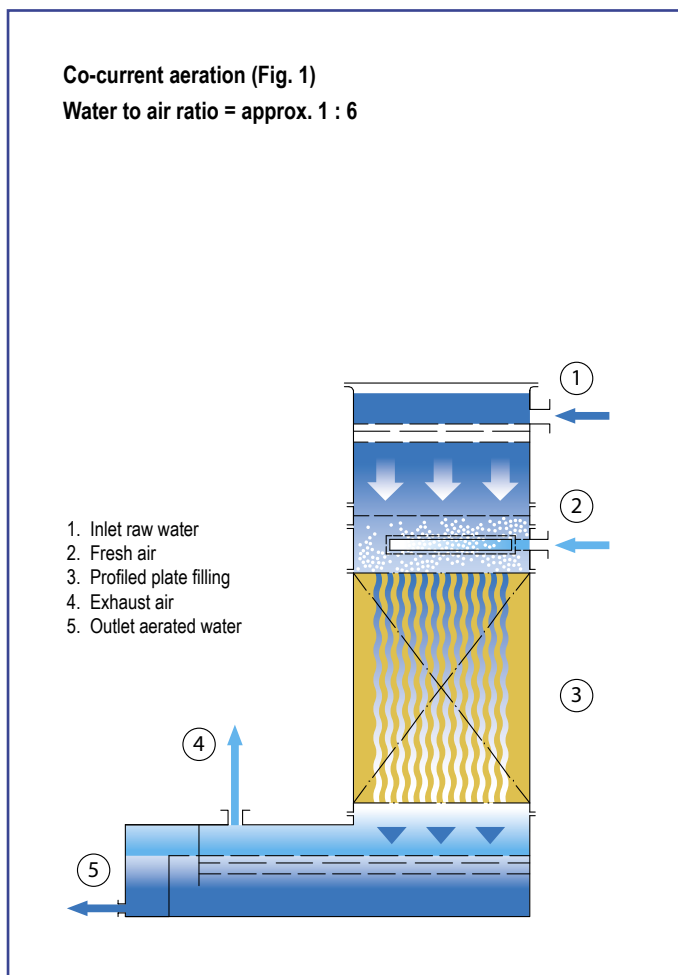
For the individual case of application with the accordingly required water qualities we are offering customized design, dimensioning, supply, installation and commissioning of the installations.

Fields of application:

- Treatment of well water, service water and industrial water
- Oxygen enrichment
- Reduction of carbonic acid and chlorinated hydrocarbons
- Iron and manganese removal

Advantages

- High specific load capacity
- High degree of efficiency or high cleaning performance respectively
- Easy controllable
- Compact design
- Insensitive towards load fluctuations
- Low maintenance
- Simple cleaning of the corrugated plates



Technical Data

WBG - ConCleanPlus® - Profiled Plate Aerator

Performance Data

Load profiled plates at	Oxygen input	approx. 500 – 800 m ³ /h x m ²
	CO ₂ expulsion	approx. 200 - 600 m ³ /h x m ²
	Elimination of chlorinated hydrocarbons	approx. 150 - 400 m ³ /h x m ²
	Raw water temperature	variable
	Degree of efficiency	up to 99 %

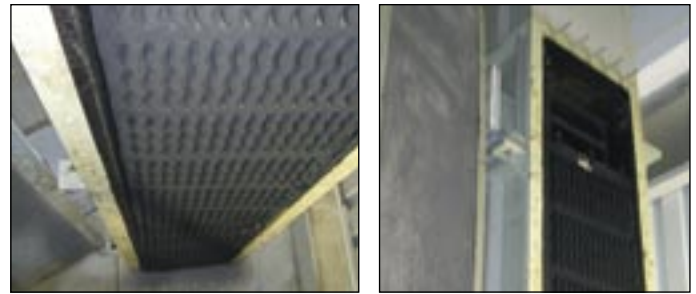
The lime-carbonic acid equilibrium will be guaranteed acc. to:

- Tillmann curve
- Saturation index
- Residual carbonic acid contents acc. to particular agreement



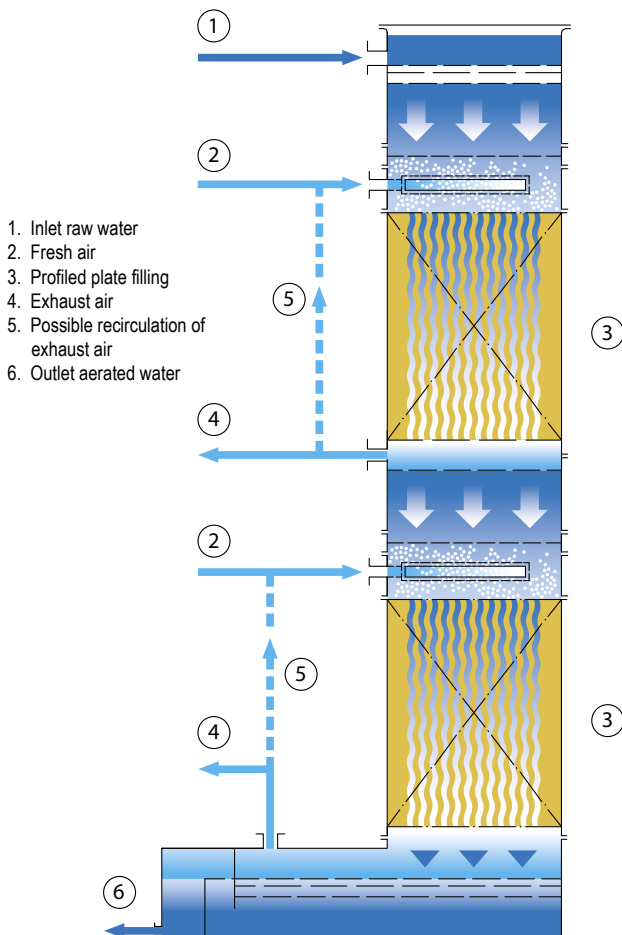
Easy cleaning of the corrugated sheets:

- The sheets of the profiled plate package are suspended on slides.
- For cleaning or maintenance purposes the sheets can be extracted from the aerator with the slide.
- The suspended sheets can then be taken out easily.



Example: open profiled plate aerators with oxidized manganese deposits.

Co-current aeration with 2 stages (Fig. 3)



Co-current aeration (see Fig. 1 and 3)

- At the top of the column the water will be distributed efficiently on the corrugated sheet packages and led into the aeration basin.
- The carbonic acid will be taken along by the air in co-current and exhausted from the up to 3 stages.
- A specific load of 600 m³/m²/h is possible.
- A carbonic acid reduction by up to 99 % can be achieved.
- Iron and manganese quantities in the water will deposit on the corrugated sheets of the aerator due to the oxidation process with the air. The high performance will remain unchanged for a long time even with a heavy iron or manganese clogging.
- Two-stage or three-stage profiled plate aerators are presenting themselves for high degradation capacities. These are constructed similar to the single-step version.

Counter-current aeration (see Fig. 2)

- The required fresh air will be supplied by means of blower or fan and introduced below the profiled plate filling. The exhaust air will escape above the profiled plates, below the water distribution.



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