Innovative solutions in water treatment



Process water

□ Swimming pool water

☑ Drinking water

☑ Waste water

Profiled Plate Aerator WBG-ConCleanPlus[®]

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



Profiled Plate Aerator WBG-ConCleanPlus®

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 used to minimize corrosion and deposits on equipment and pipelines.

For the individual case of application 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 chlorinate 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





| ed | | | |
|----|--|--|--|

Technical Data

Performance Data

Load profiled

plates at

| k | Oxygen input | approx. 500 – 800 m³/h x m |
|---|---|----------------------------|
| | CO ² -expulsion | approx. 200 – 600 m³/h x m |
| | Elimination of chlo- rinated hydrocar- bons | approx. 150 – 400 m³/h x m |
| | Raw water tempe- rature | variable |
| | Degree of efficiency | up to 99% |

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

- \checkmark Tillmann curve
- Saturation index

(1)

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 (see Fig. 1 and 3)

• At the top of the column the water is distributed efficiently on the corrugated sheet packages and led into the aeration basin

- The carbonic acid is 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 deposit on the corrugated sheets of the aerator due to the oxidation process with the air. The high performance remains 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 is supplied by means of blower or fan and introduced below the profiled plate filling. The exhaust air escapes above the profiled plates, below the water distribution.





WBG Wasserbaugesellschaft Anlagenbau mbH

WBG Wartung & Service GmbH

Tiefe Äcker 5 | D-95336 Mainleus

Tel.: +49 9229 97370-0 | E-mail: info@wbg-kulmbach.de Internet: www.wbg-kulmbach.de

More information on our website



Ask your contact person



