



Drinking water



Filtration



Open sand filtration

AQUAZUR V



Designed for drinking water plants, Aquazur V is a descending current open sand filter. It retains suspended particulate matter in raw water thanks to a thick layer of sand. The homogeneity of the sand increases the filter run time, while the thickness enables filtration at high speeds and the high water head (1.20 m) prevents degasification.

O P E R A T I O N

■ **Filtration:** The unfiltered water, distributed to the filter by the inlet weirs, enters over the sand. It crosses through the sand, where suspended solids are retained. Filtered water is evenly collected by the floor nozzles. The chamber below this floor is connected to the filter outlet, usually by a filter controller. From the outlet, the water is conveyed to subsequent treatment steps. During filtration, sand gradually clogsthe filter. When a pre-set degree of clogging is reached, filter washing must take place

■ **Washing in three steps:**

- ① Lowering of the water level to the washout weir.
- ② Filtered water backwash at 7-15 m/hr combined with air scour at 50-60 m/hr and crosswash with unfiltered water at 7 m/h. A perfectly even distribution of water and air scour is achieved by the special design of the nozzles.
- ③ Rinsing by backwash with filtered water at 13-15 m/h, with a crosswash of 7 m/hr.

The overall duration of washin ranes from 10 to 12 minutes, with water losses amountin to 4 to 5 m³/m² of filter area, only 2 m³/m² of which is filtered water.

■ **Operating control**

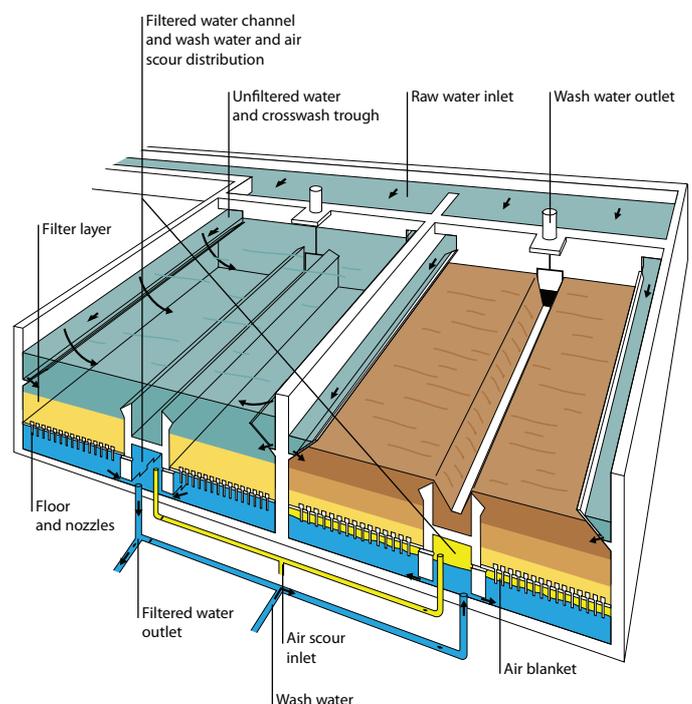
The major control parameter is the degree of sand clogging, which commonly determines when whashing is necessary. Filter flow measurement is not necessary, as the various filters deliver the same flow, evenly split by the inlet weirs. Filtered water turbidity is usually monitored at the outlet of the filter battery and not for each individual filter.

A D V A N T A G E S

- A high-rate open filter
- Original, efficient and economical backwashing
- A level controller
- Personalised operational checking

R A N G E / P E R F O R M A N C E

- Filtration rate of between 6 and 8 m/h
- Wash-water rate of 14 m³/m²/h
- Total wash-water + washout flow is between 20 and 22 m³/m²



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