Water treatment plant applying wet activated carbon

Contaminated water purification by wet activated carbon

Adsorption by wet activated carbon takes advantage of the large surface of activated carbon which, depending upon the type of carbon concerned, is between 400 and 1600 m²/g. As the contaminated water flows through the activated carbon bed, the contaminants attach to its surface, a process known as adsorption.

Used activated carbon is reactivated by the manufacturer in an officially approved plant and can be applied again. It is only in exceptional cases, e.g., when highly contaminated by pesticides, that reactivation is impossible. In any case, the contaminated carbon is disposed of in a proper and ecologically compatible way. In addition, by recycling the activated carbon, treatment costs are kept low.
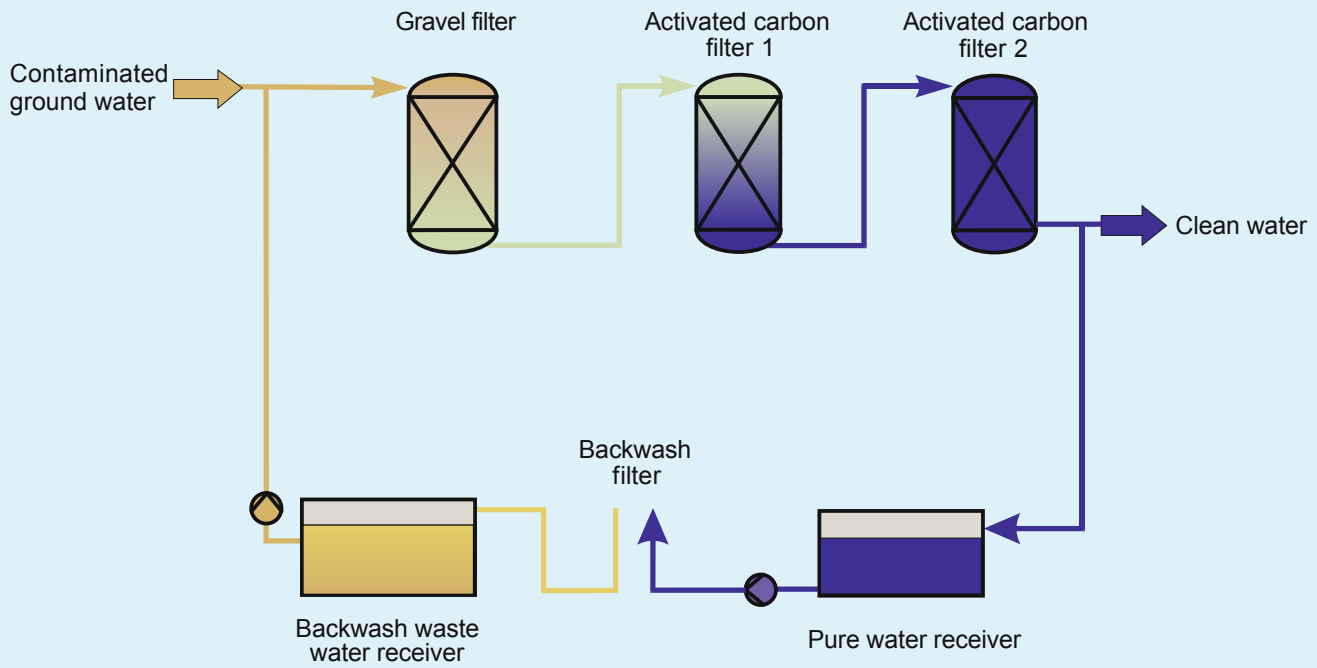
Experience has shown that even at sites with initially high hydrogen contamination levels it has been possible to reduce pollutant concentration rather quickly.

The longer a plant is operated at a particular site, the fewer contaminants are contained in the water flowing through the activated carbon filters. This translates into long activated carbon life cycles and a positive effect on operating costs. When treating water at construction sites it is normally not necessary to exchange the activated carbon for several months.

Activated carbon plants are easy to operate and guarantee one hundred percent availability.

Fields of appliaction
- benzene, toluene, xylene (BTEX)
- chlorinated hydrocarbons (CKW)
- fluorineted hydrocarbons (CFC)
- phenol
- pesticides
- polycyclic aromatic hydrocarbon (PAH)

Contaminated ground water

Gravel filter

Activated carbon filter 1

Activated carbon filter 2

Clean water

Backwash filter

Backwash waste water receiver

Pure water receiver

Process flowsheet for ground water decontamination applying wet activated carbon

Ideas for a clean environment

**Groundwater and Lake Decontamination • Drinking Water and Process Water Treatment • Air Purification
Water Worldwide • Treatment of Mineral Waste**

TÜV CERT

DIN EN ISO 9001 : 2000 (78 100 056729)
SCC ** (78 106 6729)