Dual Media / Multimedia Filtration (MMF)

Product Application

Multimedia filters are employed to eliminate suspended solids and reduce the turbidity level of the water by entrapping impurities within the media. It contains a multilayer of media such as sand, anthracite granite, and gravel and is arranged according to its densities where the lighter density is placed on the top.

Multimedia Filtration (MMF) is commonly used for filtration process in the following applications:

- Surface Water Filtration
- Pre-treatment to RO System
- Final Filtration for wastewater treatment system
- Preparation of cooling water
- Irrigation
- Industrial water and wastewater treatment
- Produced water treatment

Process Description

Multimedia Filtration is a method of filtering sediments and particulates from water by applying pressurized feed water to push liquid through filtration media.

At a certain period of continuous filtration, suspended solids entrapped in the media accumulate, reducing the efficiency of filtration process and increasing the pressure drop. The pressure drop must be less than 1 bar to have an efficient filtration system. When the differential pressure exceeds the limit, backwashing will be required.

Backwashing is the process of reversing the flow of water through the filter media to remove the particulates trapped in the filter bed. During backwash, the Multimedia Filter bed expands, clearing suspended solids to flow out of the top of the vessel.

After backwash, the bed is settled for a few minutes and flushed with water as final rinse and then is back to service.

Product Benefits:

- Produce low turbidity in treated water
- No chemical requirements
- Low operating costs
- Manual and Automatic Operation
- Easy operation and maintenance

Service and Features:

- Supply customized design
- Supply as part of integrated system to achieve the performance guarantee values
- Fast track delivery
- Retrofit for existing plants
- Installation & supervision commissioning
- Operation & maintenance services