mais

For Irrigation and Water Systems

Gravel (Media) filter

Gravel (Media) Filter

DESCRIPTION

Filtration rates of gravel filters designed to be used in filtration of river, lake, pool water and water resources containing organic materials such as lichen and alga.

OPERATING PRINCIPLE

Gravel Filters operates in two different modes including filtration process and back flushing process. Media filters are back flushing control gates assembled on the filters to be operated in filtration or back flushing procedures. Media filters clean the water by forcing it through a container filled with a small, sharp edged, "media". The water passes through the small spaces between the media grains and the debris is stopped when it can't fit through these spaces. Media filters are best for removing organic material from the water. This is where the importance of the sharp edged media comes into play. These sharp edges snag the organics which would otherwise slime and slither their way through the small spaces.

Applications

- Removal of algae, slime or other organic contaminant as well as sand, rock, grit and other inorganic contaminants
- Protects drip and micro-irrigation systems from plugging with fine filtration removal down to 200 mesh or 75 microns.
- Up to 8 bar working pressure applications.
- Primary filter for water from open reservoirs and recycled water.

Advantages

- Simplistic design utilizes very few moving parts – preventing sticking and sleeving.
- Double chambered filter design allows for efficient filtration and backflush uniformity.
- Mushroom design provides thorough back flushing with equal pressure – fluidizing and efficiently cleaning the entire sand media bed.
- Multiple mushrooms provide uniform water collection and backflush.
- Large top and bottom access ports provide for easy access to add or remove gravel media..

BACKWASH PROCESS

- Backwash sequence is initiated by either elapsed time of the MAIS controller or pressure differential between the inlet and outlet manifolds.
- Water or air pressure opens the MAIS 3-way valve causing the reverse flow of a portion of filtered water up through the stainless steel underdrain to hydraulically and uniformly lift the media bed.
- The use of a hydraulically balanced underdrain in conjunction with a gravel pack creates a proper and uniform lift of the media bed while avoiding a turbulent backwash.
- Particulate is released during the backwash event, exhausted through the backwash manifold and routed to a convenient location.
- One tank at a time is backwashed while continuing to process water for use until the entire system is clean.
- Once completed with the backwash, filtration continues until the next backwash event is called for.