MULTIPLE TANK FILTRATION PROCESS | SAND MEDIA

Media filtration is the most effective method for removal of suspended organic and inorganic solids from water down to 20 microns. Yardney media filters operate on the same basic principle as nature's own ground water filtering process. Contaminated, unfiltered water enters the system through the inlet in the top of the filter and flows, with gravity and under pressure, through the media bed where solid particulates are entrapped. This occurs until the filtration system initiates an automatic backwash to expel all contaminates entrapped within the media bed. Yardney media filters are known for their capacity to extract and hold large amounts of water-borne particulate while continuing to deliver the rated flow of clean water.

FILTRATION PROCESS

- The contaminated water enters the tank through the inlet manifold, transitioning to the Yardney 3-way valve and into the top inlet of each tank
- The Yardney two-stage deflector creates a uniform distribution for laminar flow across the media bed while avoiding channeling of the media bed
- Particulate is trapped and retained within the media bed resulting in clean process water flowing out through the stainless steel wedgewire underdrain, to the outlet of each filter tank and to the outlet manifold for end use

In addition to the Yardney filter's ability to filter large volumes of water with very little pressure drop, one of the outstanding features is the simple backwash operation. This backwashing process is possible due to the highly efficient and hydraulically balanced underdrain systems utilized in Yardney media filters.

BACKWASH PROCESS

- Backwash sequence is initiated by either elapsed time of the Yardney controller or pressure differential between the inlet and outlet manifolds
- Water or air pressure opens the Yardney 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
- Entrapped particulates are 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

MULTIPLE TANK FILTRATION PROCESS | MULTI-MEDIA

Multi-media filtration is a more effective method for removal of suspended organic and inorganic solids from water down to 5 microns. Yardney Multi-Media filters operate on a similar principle to the sand media but utilize multiple levels of coarse to fine media to achieve progressive filtration through the entire filter media bed. The coarse media within the top section of the tank filters the largest particulates while the finer media beds filter the fine particulates. This occurs until the filtration system initiates an automatic backwash to expel all contaminants entrapped within the media bed. Yardney Multi-Media filters are known for their capacity to extract and hold large amounts of water-borne particulate while continuing to deliver the rated flow of clean water.

FILTRATION PROCESS

- The contaminated water enters the tank through the inlet manifold, transitioning to the Yardney 3-way valve and into the top inlet of each tank
- The Yardney two-stage deflector creates a uniform distribution for laminar flow across the media bed while avoiding channeling of the media bed
- Particulate is trapped and retained within the media bed resulting in clean process water flowing out through the stainless steel wedgewire underdrain, to the outlet of each filter tank and to the outlet manifold for end use

In addition to the Yardney filter's ability to filter large volumes of water with very little pressure drop, one of the outstanding features is the simple backwash operation. This backwashing process is possible due to the highly efficient and hydraulically balanced underdrain systems utilized in Yardney Multi-Media filters. Yardney Multi-Media filters are hydraulically designed not to commingle the multiple levels of media during a backwash cycle due to the specific gravity of each media.

BACKWASH PROCESS

- Backwash sequence is initiated by either elapsed time of the Yardney controller or pressure differential between the inlet and outlet manifolds
- Water or air pressure opens the Yardney 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
- Entrapped particulates are 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

