

# eNPure MFS-Series MULTIMEDIA FILTRATION SYSTEM

Service  
People  
Engineering  
Partnerships  
Quality

## Water Treatment and Process Systems

**Multimedia filtration systems are designed to remove turbidity, particulates and reduce the feed water Silt Density index (SDI), a measure of fouling potential.**

Depending upon the application, several stratified layers of material are selected, typically including gravel, sand and anthracite.

While in service, the feed water is introduced into the top of the vessel, flows down through the media bed, and is collected through the bottom under drain system. Particulates are captured within the bed.

During filtration, the sites available for turbidity and particulate removal become plugged. To re-activate the media, it must be backwashed, requiring a two step process. First, the particulates are loosened from their tapped sites and washed away, followed by a rinse to re-compact the carbon bed. Backwash cycles are initiated based on service run time or differential pressure measured across the media bed.

During the first step, water enters the bottom of the vessel and lifts the media causing the bed to expand and freeing the particles and other impurities. These impurities are washed out of the bed through the top distributor. In the second step, the rinse cycle, water enters the top distributor, passes through the media and drains out the bottom collector. Due to the differing densities of the media, the backwash also aids in re-stratifying the bed.

All MultiMedia Filter vessels are ASME Code designed and stamped. Materials of construction can be either composite, steel, or alloy. Manways and handholes are sized to suit the internals and service. Steel vessels are epoxy lined and painted with structural steel legs.

Standard internals and face piping are schedule 80 PVC, but can be available in other materials. The inlet distributor consists of either a hub or header with drilled laterals; the outlet collector consists of a hub or header with slotted laterals. The selection of a hub or header arrangement is dependent upon the size of the filter vessel. Both internal and face piping are factory supported.

Standard valving is pneumatically actuated. For line sizes 2" and smaller, ball valves are utilized; in larger line sizes, butterfly valves.

All Multimedia Filters are shipped with the media palletized for field installation.



### Available Options

- Automation Delete
- Stainless Steel or Alloy Piping
- Stainless Steel or Alloy Internals
- Custom Instrumentation
- Sub-Surface Wash Header
- Air Scour header / Blower
- Valve Upgrades
- Sight Glasses
- Backwash Sight Glass
- Resin Trap
- Multiple / Alternating Units
- Manway Options
- Lining Options
- Paint Options
- Relief Valves
- Dry False Bottom



Your source for Value Engineered Water and Process Systems

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