

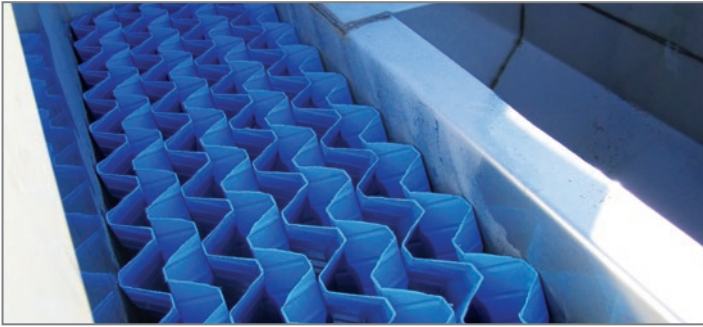
# MULTIWASH® Backwash Process



**WestTech®**

 **SWIRE WATER**

# MULTIWASH® Backwash Process



The MULTIWASH® backwash process solves the media fouling and frequent backwash problems that can occur in today's plants. Its high-performance backwash eliminates mudball formation, media grain coating, and biological fouling without the need for chemical cleaning systems.

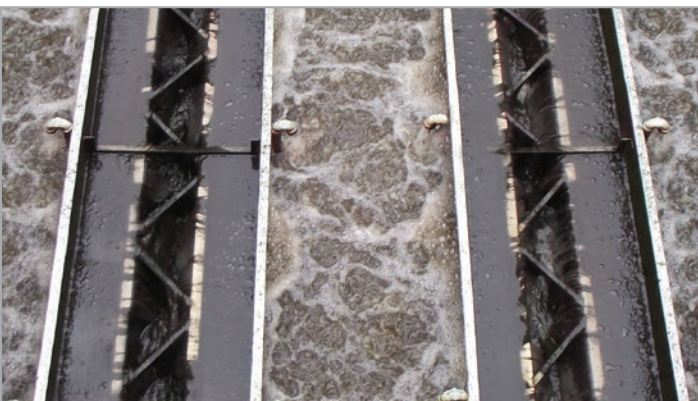
## Why Choose the MULTIWASH® Process?

The MULTIWASH® process combines air and water simultaneously for the duration of the backwash. The simultaneous air and water wash provides a vigorous scouring action to clean the media while specially designed washtrough baffles are used to eliminate media loss as the loosened dirt is flushed from the media bed. The superior cleaning performance of the MULTIWASH® process prevents both chemical and biological fouling of the filter media. This process eliminates expensive chemical cleaning and frequent media replacement while reducing long-term operational costs and improving filtration efficiency.

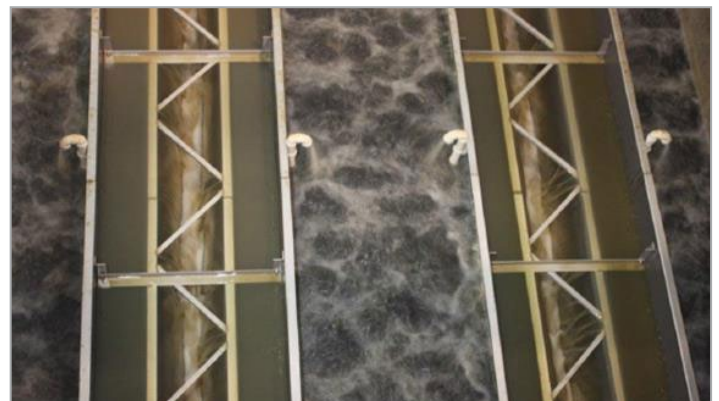
The MULTIWASH® backwash process was originally developed for wastewater applications. Deep filter beds with large media provided long filter runs with good effluent quality. However, the large filter media bed required very high backwash rates and large volumes of water for proper backwashing. The addition of air to the backwash system increased the scouring action of the backwash, more effectively dislodging solids from the media. However, this extra energy could also lift the media out of the filter cell. This application pioneered the development of specially designed media retention baffle troughs to eliminate media loss. All media, including sand, anthracite, GAC, and other specialty media is retained using MULTIWASH® baffles.

## Benefits:

- Guarantees media cleanliness
- Reduces backwash waste volume
- Allows for smaller backwash pumps, piping, and valves
- Prevents fouling
- Maximizes filter run length



MULTIWASH® process in a wastewater application



MULTIWASH® process in a water application



## How It Works:

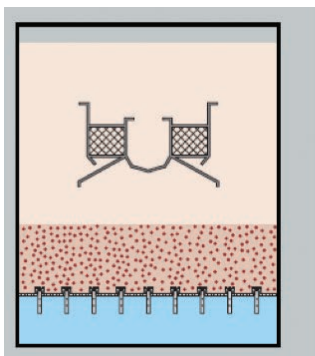
**Terminal Headloss:** The backwash sequence starts at terminal headloss; the inlet and effluent flows are stopped and the backwash waste valve is opened.

**MULTIWASH® System:** Backwash water and air are started simultaneously when the cell water level reaches the washtroughs. Simultaneous air and water are continuously applied to the media while the backwash wastewater is overflowing the trough.

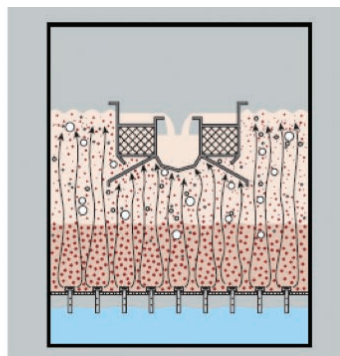
**Air Purge:** Once the MULTIWASH® backwash cycle is complete, the air is discontinued. The water continues to flow, purging the underdrain and media bed to remove entrapped air.

**Return to Service:** If required by the filter media, a restratification step is performed to reclassify the media. The filter is then returned to service. If applicable, a filter-to-waste step is performed prior to returning to service.

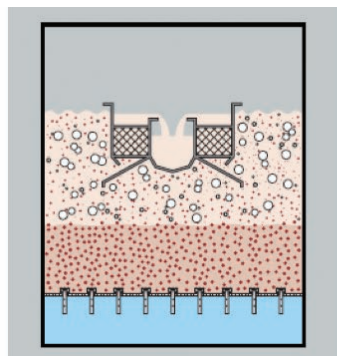
The MULTIWASH® process is the most efficient, effective, and economical backwash cleaning method in the market. Other cleaning methods may not clean the media adequately and may require more energy and time to perform. These advantages make the MULTIWASH® process the best choice for any backwash cleaning system.



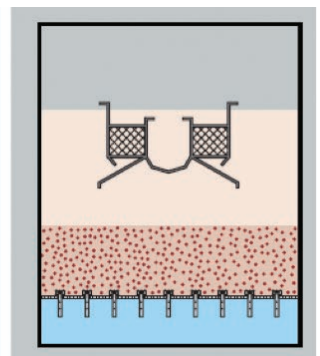
**Terminal Headloss**



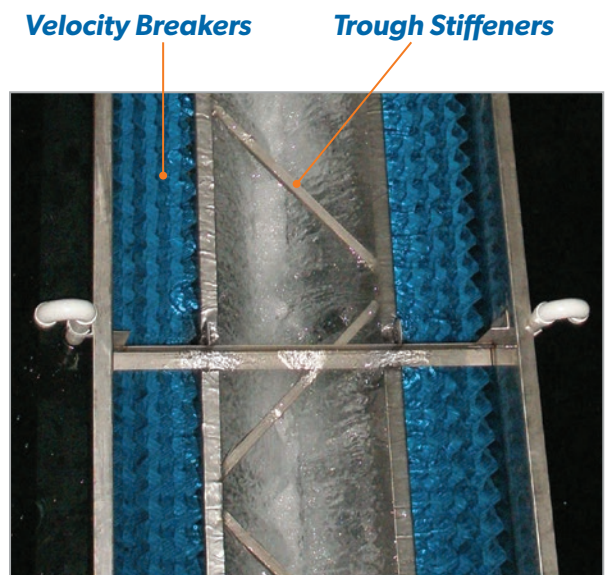
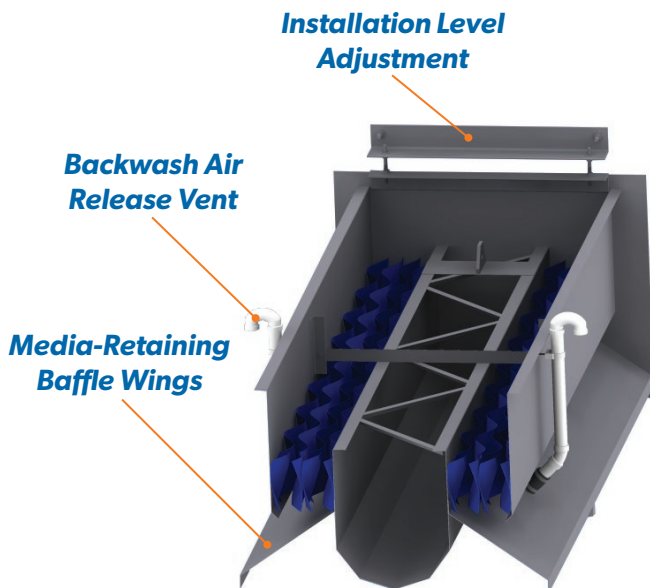
**MULTIWASH® Step**



**Air Purge**



**Return to Service**





# WESTECH<sup>®</sup>

 SWIRE WATER

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