

WWETCO FlexFilter™

High-Rate Compressible Media Filter



WWETCO

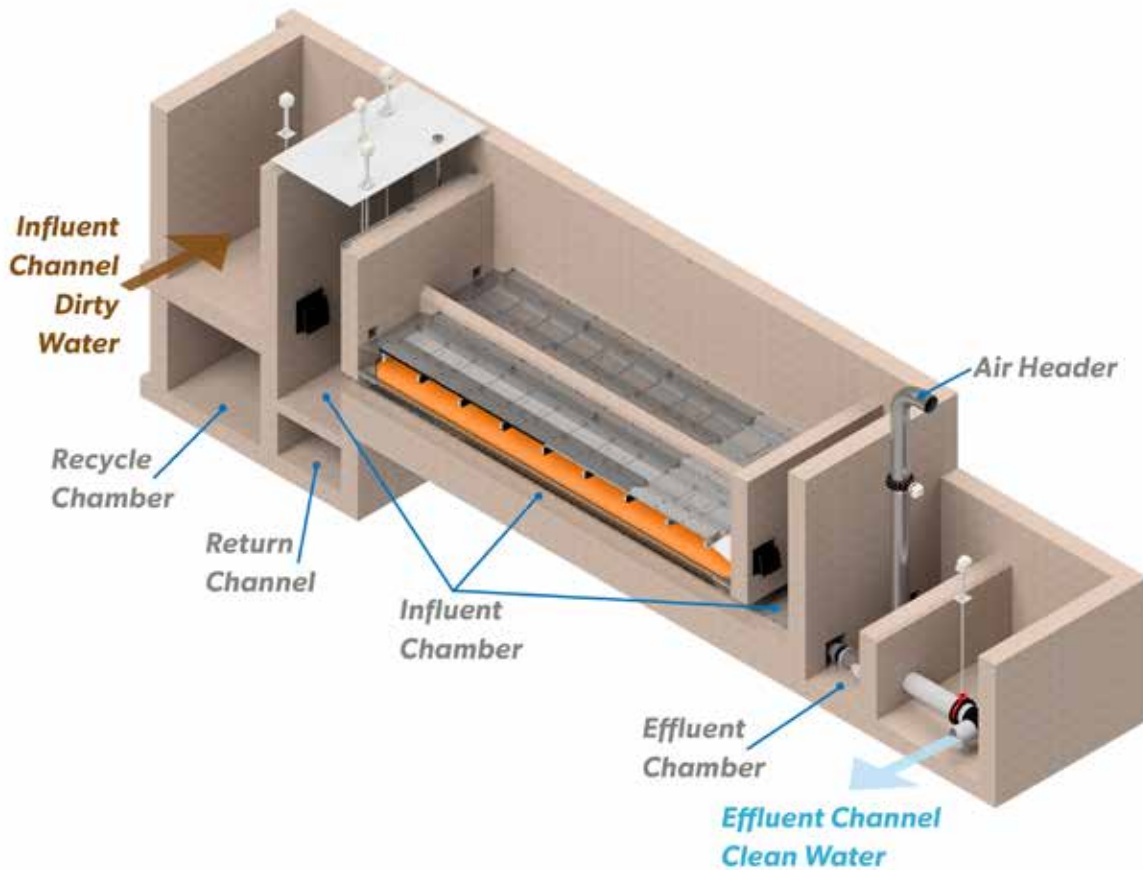
Simplified Wet Weather and Tertiary Treatment.

WESTECH®

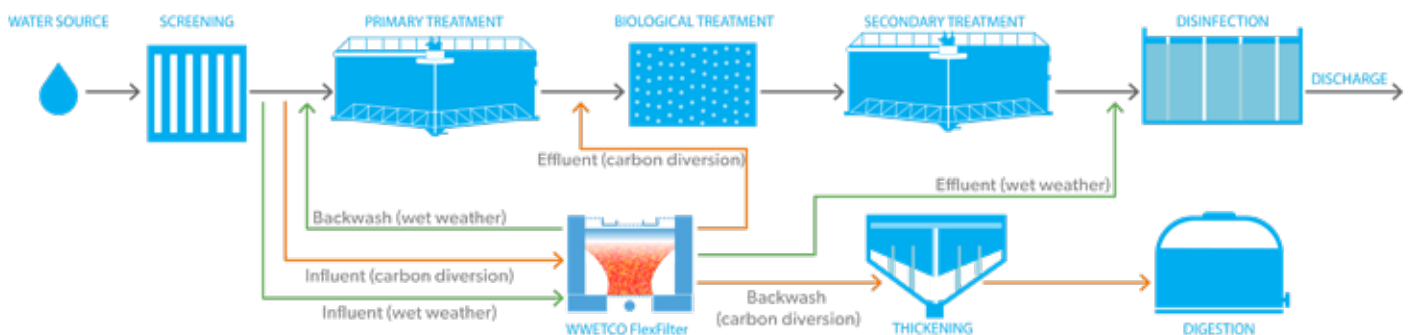
Dual-Use Compressible Media Filtration

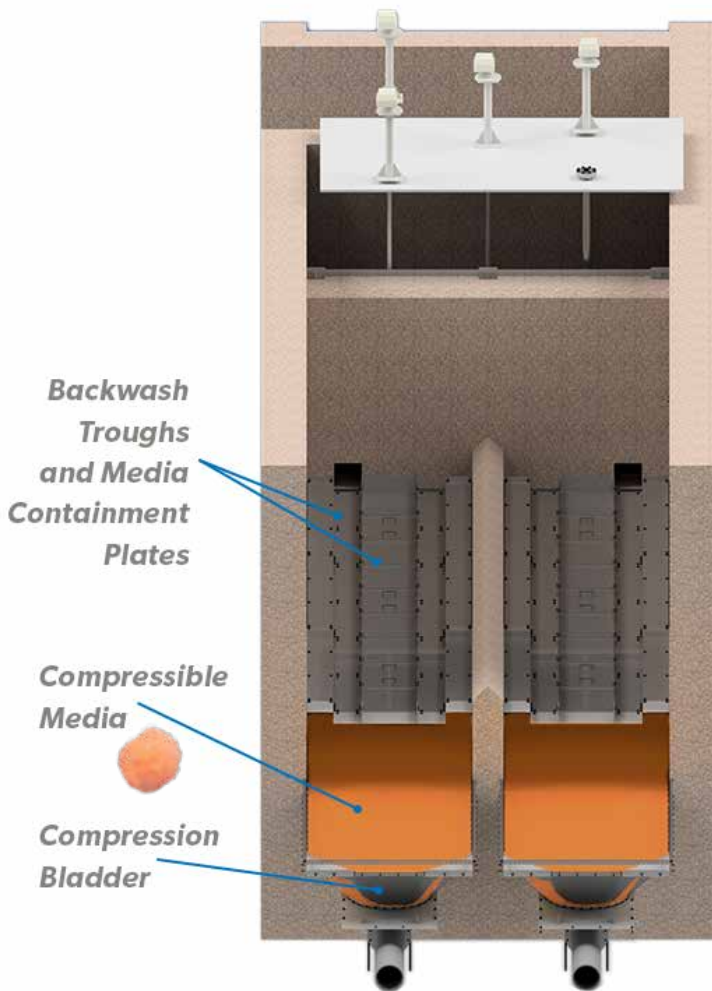
Communities must find a reliable and effective way to prevent weather-related combined sewer overflow (CSO) and sanitary sewer overflow (SSO) from spilling directly into nearby waterways. While a separate treatment system for CSO/SSO concerns is viable for some plants, others do not have the footprint or funding for a single-use system.

The WWETCO FlexFilter™ system meets both of these concerns with a simple, gravity-fed process that uses compressible fiber media in a unique system that plants can use for both primary or tertiary treatment and sporadic wet-weather treatment to remove total suspended solids (TSS).



Primary and Wet Weather Process





Primary or Tertiary Treatment Plus CSO

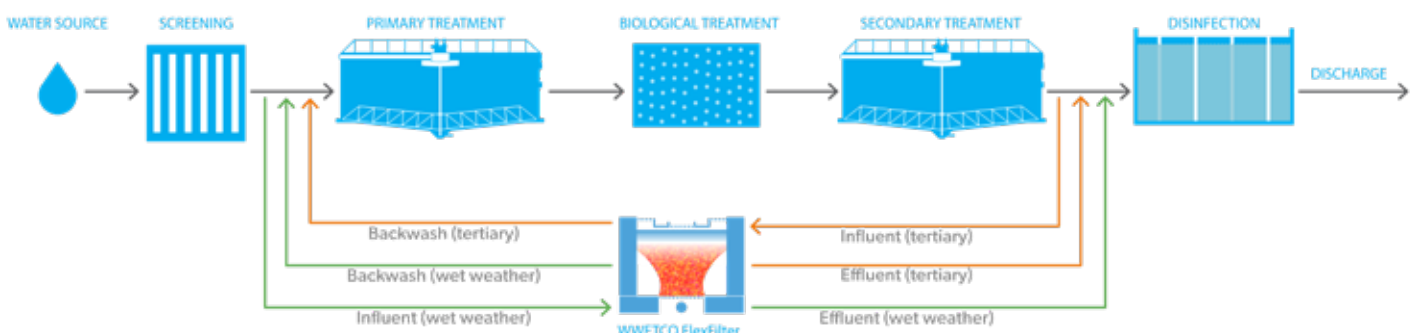
The FlexFilter can easily take the place of a traditional primary clarifier. This creates a dual-use system, providing the additional capacity to handle wet-weather conditions while increasing primary-treatment capacity in dry weather.

Likewise, plants that require tertiary treatment can either choose the FlexFilter as their tertiary system or implement FlexFilter as a dual-use system. The FlexFilter can achieve low-level phosphorous removal, helping plants meet increasingly strict phosphorous removal requirements for reuse-quality effluent.

CSO/SSO Treatment

With automated operation that requires minimal operator attention, the FlexFilter readily functions even as an unmanned satellite system, making it ideal for plants that need or want to implement a standalone CSO/SSO system outside of their current treatment trains. It has no internal moving parts and does not lose media in its treatment process, so system maintenance is minimal.

Tertiary and Wet Weather Process



WWETCO FlexFilter Applications

- Treatment for CSOs/SSOs, including satellite facilities
- Stormwater inflow and infiltration (I&I) treatment
- Enhanced primary filtration for carbon diversion
- Tertiary treatment and phosphorous removal
- Dual-use primary or tertiary treatment and CSO/SSO
- Lagoon effluent
- Industrial water pretreatment
- Peak flow management

WWETCO FlexFilter Advantages

- Simple to operate, unmanned operation for CSO/SSO systems
- No chemical use required for CSO/SSO treatment
- Rapid, automatic startup with no filter conditioning required
- No internal moving parts
- Ability to sit clean and dry between wet-weather events
- Ability to handle high influent solids loading greater than 500 mg/L
- 80-90 percent TSS removal for CSO and primary treatment
- Effluent suitable for UV or chemical disinfection
- High loading levels for primary and tertiary treatment due to the unique storage capacity of the fiber media
- <2 mg/L effluent TSS for tertiary treatment
- Compact, customizable design supports unique footprints
- Concrete structure, stainless steel tank, and retrofit options
- No media loss
- Efficient air and low-flow water backwash system

Pilot Program and Mobile/Rental Equipment

We offer multiple pilot and mobile/rental equipment options.



WESTECH® Tel: 801.265.1000
westech-inc.com
info@westech-inc.com
Salt Lake City, Utah, USA

World's Largest Compressible Media Filter

Springfield Ohio WWTP 100 MGD WWETCO FlexFilter



This FlexFilter wet-weather facility has a capacity of 100 MGD (454,609 m³/d), yet it only occupies five percent of the 40 MGD (181,843 m³/d) main plant's area. The FlexFilter contains nearly 20,000 cubic feet (566 cubic meters) of compressible media and is used 50 to 60 times a year as part of a high-rate treatment (HRT) facility to treat CSO events. This process extends the performance capability of the Springfield Wastewater Treatment Plant so that CSO flows do not have to bypass the facility, enhancing the environmental health of the nearby Mad River.

Operating Data

