



PRE-FILTRATION FOR ADVANCED GROUNDWATER TREATMENT SYSTEMS

Protecting Reverse Osmosis and Advanced Treatment Systems Through Reliable Suspended Solids Removal

Groundwater treatment facilities increasingly rely on advanced treatment technologies to address PFAS, radium, iron, manganese, arsenic, nitrates, and other regulated contaminants.

While these contaminants are removed by downstream treatment processes such as reverse osmosis (RO), ion exchange (IX), granular activated carbon (GAC), and media filtration, reliable operation begins with effective pretreatment.

Tekleen automatic self-cleaning filters remove suspended solids before they reach downstream treatment equipment, helping improve feedwater quality, reduce maintenance, and support long-term system performance.

WHERE TEKLEEN ADDS VALUE

Tekleen automatic self-cleaning filters provide reliable pretreatment that supports the performance and long-term operation of advanced groundwater treatment systems.

Contaminant	Primary Treatment Technology	How a Tekleen Pre-Filter Adds Value
PFAS Treatment	Granular Activated Carbon (GAC), Ion Exchange (IX), or Reverse Osmosis (R/O)	Continuously removes suspended solids, preventing particulate buildup that would otherwise reduce adsorption capacity.
Radium Removal	Ion Exchange (IX) or Reverse Osmosis (R/O)	Strips out sediment and oxidized iron/manganese upstream, keeping resin beads clean and preserving radium exchange capacity over longer service cycles.
Iron & Manganese Treatment	Oxidation + Filtration	Handles high sediment loads common in iron-heavy well water, reducing strain on downstream oxidation media and preventing premature clogging.
Arsenic Removal	Adsorptive Media (activated alumina or iron-based media) or Reverse Osmosis (R/O)	Removes particulates ahead of the adsorptive media bed, maintaining the consistent flow and surface contact needed for effective arsenic binding.
Nitrate Reduction	Anion Exchange (nitrate-selective resin) or Reverse Osmosis (R/O)	Keeps sediment from fouling the resin bed, maintaining exchange capacity, and reducing regeneration frequency.

WHY PRETREATMENT MATTERS

Effective suspended solids removal ahead of advanced treatment helps:

- Reduce particulate loading on downstream treatment equipment.
- Minimize membrane fouling.
- Reduce differential pressure.
- Extend membrane cleaning intervals.
- Reduce cartridge filter replacement.
- Improve process reliability.
- Lower lifecycle operating costs.



WHY ENGINEERS SPECIFY TEKLEEN

- For more than 40 years, Tekleen has helped municipalities and industrial facilities improve pretreatment reliability and protect critical downstream treatment processes with:
- Continuous filtration during automatic backwash.
- Automatic self-cleaning operation.
- No disposable cartridges.
- Low backwash water consumption.
- Reduced maintenance and operating costs.
- Compact, long-life design.

Flow. Uninterrupted.

**REQUEST A
QUOTE TODAY!**



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