

FILTRONICS

ELECTROMEDIA® V

Among the key features to any of the Filtronics ***Electromedia®*** filters is the efficient use of water for backwash. For a typical application the backwash to filtration ratio is less than one percent.

With a raw water turbidity of 15 NTU or less, we conservatively estimate the interval filter run time duration to be 18 hours. The backwash to filtration ratio for a typical 750 gpm application is:

- 750 gpm X 18 hours X 60 minutes = 810,000 gallons produced.
- The backwash cycle lasts four minutes at 1800 gpm and surface wash lasts one minute at 180 gpm. (The backwash rate assumes 20 degrees Centigrade temperature of the source water).
- The total volume of water used for surface wash and backwash total 7,380 gallons.
- The backwash to filtration ratio is $7,380/810,000 = 0.009$ or 0.9% for a 99+% efficiency.

Filtronics systems have a ***very short*** recovery after a backwash as demonstrated in the attached graph. The filter system produces a filtrate of less than 0.2 NTU in ***only five minutes*** after a backwash. Thus, not only adding to the efficiency of the system but producing a high water quality quickly to the potable water system.

Assuring a two minute rinse to waste water cycle, the overall efficiency is 98.9%.

To further reduce the amount of water lost, many applications include a backwash water reclaim system to recover more than 99.999% of the water used for backwash. That water can be sold to the customer, meeting the same effluent requirements as the raw source.