

How To Choose The Best Iron Filter Or PH Filter For Your Application

A “How To” on choosing the correct filter for your needs.



Test The Well Pump

The first thing you need to do is run a simple test on your well pump to get an approximate gallon per minute figure. This is important due to the fact that iron filters and Ph filters need 5 gallons per minute minimum to backwash properly.

This is how you do the test:

- 1) Get a 5 gallon bucket, a hose, and a watch with a second hand.
- 2) Hook the hose up from the nearest hose bib to the well or pressure tank before any filters. Note: If you have a cartridge filter inline before the faucet remove the cartridge from it.
- 3) Make sure there is no water running anywhere. Turn hose bib on all the way. As soon as the well pump turns on start filling the bucket and time how long it takes to fill it up.
- 4) Write the information down and come back to this presentation.

Greensand, Birm and PH Filters backwash and flow rate specifications.

- ▶ Cubic foot backwash rate needed: 5 gpm
- ▶ 1.5 cubic foot backwash rate needed: 7 gpm
- ▶ Cubic foot backwash rate needed: 7 gpm
- ▶ 2.5 cubic foot backwash rate needed: 9 gpm
- ▶ Greensand filter 1 cubic foot service flow rate: 5 gpm peak 7 gpm
- ▶ Greensand filter 1.5 cubic foot service flow rate: 7 gpm peak 9 gpm
- ▶ Greensand filter 2.0 cubic foot service flow rate: 9 gpm peak 11 gpm
- ▶ Greensand filter 2.5 cubic foot service flow rate: 11 gpm peak 13 gpm
- ▶ Birm filter 1 cubic foot service flow rate: 5 gpm peak 7 gpm
- ▶ Birm filter 1.5 cubic foot service flow rate: 7 gpm peak 9 gpm
- ▶ Birm filter 2.0 cubic foot service flow rate: 9 gpm peak 11 gpm
- ▶ Birm filter 2.5 cubic foot service flow rate: 11 gpm peak 13 gpm
- ▶ Ph filter 1 cubic foot service flow rate: 5 gpm peak 7 gpm.
- ▶ Ph filter 1.5 cubic foot service flow rate: 7 gpm peak 9 gpm.
- ▶ Ph filter 2.0 cubic foot service flow rate: 9 gpm peak 11 gpm.
- ▶ Ph filter 2.5 cubic foot service flow rate: 11 gpm peak 13 gpm.

How To Size The System

How to size the system is limited to what size you can backwash properly. If your pump is capable of backwashing the largest of these systems, then do the following to size the system.

A home with the following will require the following size iron filter or ph filter:

Up to two bathrooms with a home up to 3,000 sq.ft. a 1.0 cubic foot iron or ph filter system is required.

Up to three bathrooms with a home up to 4,000 sq.ft. a 1.5 cubic foot iron or ph filter is required.

Up to 5 bathrooms with a home up to 5,000 sq.ft. a 2.0 cubic foot iron or ph filter is required

Up to 6 bathrooms with a home up to 6000 sq.ft. a 2.5 cubic foot iron or ph filter is required

1) Amount of full bathrooms in home.

2) Any multi body sprayers in one shower stall

3) Square footage of home.

Note: If you do not have a well pump that produces enough gallons per minutes needed for a larger system, but have a lot of bathrooms that will be used at the same time, then you have a few choices. Install a larger pump or purchase a system that you can backwash and minimize the amount of fixtures being used at the same time.

**Now that I know what
size to get, which one
would be best for me?**



BIRM FILTER

If your iron content is less than 7 Mg/L or ppm with no hydrogen sulfite (Sulfur) and the iron is in a physical form with a ph balance between 6.8 to 9.0 then a Birm filter is a good choice.

www.qualitywatertreatment.com/catalog.html?Tp=6&VI=Birm+Filter

Terminator System:

If the iron is between 7 and 11 Mg/L or ppm then you will need to either purchase the terminator system, which is a Birm filter with an air injector and air precipitation tank to enhance the performance of the Birm filter. Or install a water softener with fine mesh resin to remove the rest of the iron from the water. A terminator system with a water softener using fine mesh resin will remove up to 20 Mg/L or ppm iron, sulfur up to 5 Mg/L or ppm, and up to 3 Mg/L or ppm manganese from the water.

www.qualitywatertreatment.com/catalog.html?Tp=6&VI=Terminator

Green Sand Filter

If your iron content is less than 7 Mg/L or ppm with hydrogen sulfite (Sulfur) and the iron is in a dissolved or physical form with a ph balance between 6.8 to 9.0 then a greensand filter or terminator is a good choice and will remove up to 11 Mg/L or ppm Iron, 5 Mg/L or ppm sulfur, and 3 Mg/L or ppm manganese from the water.

www.qualitywatertreatment.com/catalog.html?Tp=6&VI=Greensand+Filter

www.qualitywatertreatment.com/catalog.html?Tp=6&VI=Terminator

Add a Water Softener:

If iron is 12 to 20 Mg/L or ppm iron, and if manganese is between 5 and 6 Mg/L or ppm then add a water softener with fine mesh resin to the application. We recommend using the fleck 2510 SXT water softener for this.

www.qualitywatertreatment.com/water_softeners_fleck_2510SXT.html

For Very High Iron

If your Iron content is 20 Mg/L or ppm or above; we recommend that you install a greensand filter, and use a stenner chemical feed pump. Using a feed pump with a 120 gallon retention tank for contact time so the chlorine or 7% hydrogen peroxide can oxidize the iron, manganese and sulfur will allow the greensand filter to remove it more readily. A 1.5 cubic foot centaur backwashing carbon filter to filter out anything that the greensand filtered missed, and to either remove the chlorine residue from the water or convert any residual of peroxide back in to oxygen should follow. Add on a 2510SXT – 80,000 grain capacity water softener using fine mesh resin.

Here are the links for these products:

<http://www.qualitywatertreatment.com/ChemicalFeedPumps-tp2-108.html>

<http://www.qualitywatertreatment.com/RetentionTanks-tp2-119.html>

[Fleck 2510 Auto Backwash Centaur Carbon Filter 1.5](http://www.qualitywatertreatment.com/Fleck_2510_Auto_Backwash_Centaur_Carbon_Filter_1.5)

http://www.qualitywatertreatment.com/water_softeners_fleck_2510SXT.html#80

Raising Your PH

Raising the pH of your water to 7.0 is done by using a pH neutralizer. A pH neutralizer uses a media called calcite limestone in it (crushed milled marble manufactured for the purpose of water treatment). Choose the size of the Ph Neutralizer as shown on slide 3.

www.qualitywatertreatment.com/catalog.html?Tp=6&VI=Neutralizer

**We hope this information has helped you in your quest for choosing the correct
Iron Filter for your needs!**

For additional help and/or information please contact us at:

sales@qualitywatertreatment

1-866-278-4130

Thank you from Quality Water Treatment, INC.

