

Backwashing A DE Filter

One of the most common types of filters in the Denton area is a diatomaceous earth (DE) filter. DE filters can filter down to less than 5 microns, which is very small. For example, a grain of salt is approximately 100 microns and the human eye can see down to approximately 40 microns.

Diatomaceous earth (DE) is a fine, white powder that is all-natural and is made from fossilized material. Inside a DE filter is a series of grids which are covered in nylon. The purpose of these grids is to hold the DE in place. The DE actually coats the grids and acts a filter to trap dirt and debris that is in your pool water. As this dirt and debris trapped by the filter, the filter becomes dirty which increases the pressure and decreases the water flow—thus rendering your filter inefficient and oftentimes incapable of physically cleaning the pool water. When this occurs, it is necessary to clean the filter.

The most common way to clean the filter is by backwashing. DE filters have a valve that reverses the flow of the water thru the filter, which flushes out the filter—this is referred to as backwashing. After this backwashing, the filter grids must be re-coated with DE.

How often do I need to backwash?

We recommend backwashing the filter when the pressure increases 8-10psi (as viewed on your filter pressure gauge) over the clean starting pressure or a minimum of once per month.

How do I backwash my DE filter?

We recommend following the operating instructions for backwashing from the manufacturer of your filter. Most of these are available online at your filter manufacturer's website. Following is a general guide if you are unable to find your manufacturer's operating instructions.

1. Layout the backwash hose (if necessary).
2. Turn the pump off
3. Turn the handle on the multiport valve to the backwash position. If you have a push/pull valve (also called a slide valve), then move the valve to the up position and be sure that it is in the locked position (usually achieved by turning the valve handle).
4. Turn the pump on (standing away from the filter) and leave on until the water coming out is clear. This typically doesn't take more than 2-3 minutes.
5. Turn off the pump.
6. Put the valve (either multiport or push/pull) back into the filter mode.
7. Turn the pump on and run for 20-30 seconds.
8. Repeat steps 2 thru 5 until there is no dirty water coming out of the backwash line (this often takes 3-4 times, depending on how dirty the filter is).
9. Turn the pump off.
10. Turn the handle on the valve to the filter position.
11. Turn the pump on (standing away from the filter) and be sure that water begins to flow.
12. Add the proper amount of DE thru the skimmer.

Note: If DE is not added at this time, it is possible for the filter grids to become clogged with dirt, preventing the filter from working properly.

If you have a 36 square foot filter—add 6 scoops of DE using a DE scoop (which is equal to 3-44 oz. drink cups)

If you have a 48 square foot filter—add 8 scoops of DE using a DE scoop (which is equal to 4-44 oz. drink cups)

If you have a 60 square foot filter—add 10 scoops of DE using a DE scoop (which is equal to 5-44 oz. drink cups)

If you have a 72 square foot filter—add 12 scoops of DE using a DE scoop (which is equal to 6-44 oz. drink cups)

Note: If the filter has a manual air relief valve, turn it to the full open position any time that the pump is first turned on. After water comes out of the air relief valve, turn it to the closed position.

Filter valves

Most DE filters have filter valves, which allows you to backwash the filter. There are two types of filter valves:

1. **Push/pull valve** (also called a slide valve)—
These types of valves have two positions, either filter or backwash. On a DE filter, the filter mode is typically the down position and the backwash mode is in the up position.
2. **Multiport valve** (also called dial valve)—
Most of these types of valves have six positions. The six positions of the valve are as follows:
Filter—the normal position for routing water through the filter and back into the pool. *Backwash*—reverses the flow of water through the filter and cleans it by carrying dirt and debris out through the waste line. *Rinse*—this prevents dirt from re-entering the pool when you start filtering. *Re-circulate*—allows water to be circulated by passing the filter, normally use only until a leaky filter is repaired. *Waste*—discharges water directly to the waste line, use to drain pool or to vacuum dirt directly out of pool. *Closed*—used if pool is “winterized” (equipment is drained) for the winter.

Please note that regardless of the type of valve that you have, the pump should always be turned off when changing the position of the valve.

If DE returns to the pool when the valve is in the filter mode—then it is usually a problem of a broken nylon grid(s), a broken manifold, or possibly backwash valve problems.

Periodically (we recommend at least every 6 months), the filter should be disassembled so that each filter grid can be cleaned individually. This provides a much more thorough cleaning than backwashing.