

## Changing the Sand in Your Swimming Pool Filter

### Changing the Sand in Your Swim Pool Filter Could Save You Money

How often should the sand in a swimming pool filter be changed? We recommend changing the sand every five years. While we have seen filters go 20 years or more without changing the sand and still do the job, they are not as efficient as they should be.

Filter sand has been ground to a size of .45 to .55 mm in diameter and is very rough when new. This roughness is what makes the sand efficient at filtering out the particles of dirt in your water. As this roughness is smoothed out - as stones in a stream wear smooth over time - your filter's efficiency goes down. This means that your system has to run more frequently to accomplish the same task.

This can increase the amount of sanitizer used, thereby increasing your chemical costs. In addition we have found that after five years, your sand has worn enough to allow dirt to penetrate so deep that normal backwashing doesn't clean it completely. The result is a shorter filter cycle which requires more frequent backwashing. *If you are not comfortable with plumbing work, contact a professional.*

### The first step in changing your sand is to remove the old sand

1. To remove the old sand from your swimming pool filter, you will need to open the filter:
2. Filters with the multiport valve mounted on top will generally require disconnecting the plumbing running to the valve.
  - o If you do not have unions on these pipes, you will need to cut them to remove the multiport valve (this would be a good time to install unions on these lines to facilitate future service on your filter).
  - o Filters with the multiport valve mounted to the side will have either a small top which can be removed or a tank which is bolted/clamped in the middle that can be taken apart.
3. If your filter is a two-piece tank which is bolted/clamped in the middle:
  - o Pull the drain plug first to allow the water to drain before pulling the tank apart.
  - o Once you have pulled it apart, it is an easy matter to dig out the sand.
4. If your filter is not the two-piece type but has the small opening at the top from either the multiport valve or cover, there are two ways to remove the sand.
  - o The first and easiest way involves filters that have a plug at the bottom that allows the sand to flow out.
  - o This is usually a larger plug and your winterizing drain plug is threaded into it.
  - o By removing this plug, you can use your garden hose to wash out the sand from the tank onto the ground.
  - o If you have a single piece tank that does not have the type of drain plug that allows the sand to drain out, you will have to dig out the sand through the top with a cup.
    - First, you will want to pull the drain plug to allow the water to drain out.
    - If you have a top mounted multiport valve, there will be a stand pipe directly in the center of the opening. Do not try to push or pull this out of the way. It is very easy to break off the laterals which are connected to this.
    - Dig out the sand with a small cup.
    - Once you have dug out enough sand to expose the laterals, you will be able to move the stand pipe out of the way.
  - o If your valve is side-mounted, you will have an over-drain which fills the opening at the top. This over-drain is removable and, most of the time, simply unscrews.
    - You can then rotate the pipe it is connected to by moving it to the side and out of the way.
    - There are some cases where the over-drain is glued to its pipe. In this case, you will need to rotate the pipe with over-drain out of your way.

## **Now dig out the sand**

1. Digging out the sand is best accomplished with a plastic cup - not a shovel!
2. You need to be careful when digging not to break the laterals of your under-drain. These are fragile and can be easily broken if you are not careful. This is why you do not want to use a shovel.

## **Once you have removed all the sand you will want to clean and examine the laterals thoroughly.**

1. Most laterals will unscrew, allowing easy removal from the tank for cleaning and examining.
2. There are some laterals which snap in but these are only on two-piece tanks.
  - o In this case, you will be able to remove the entire under-drain assembly in one piece.
  - o If these are glued in, you will not be able to pull them off, so don't try! They break easily.
3. Be sure to check the laterals for any signs of breakage, and replace them if necessary.
4. You can soak them in a mixture of muriatic acid and water if there is a lot of dirt impacted in them. Be sure to rinse thoroughly afterwards.
5. Now rinse out the tank and re-install the clean laterals

## **Now you are ready to replace the sand.**

1. First, replace the under-drain assembly.
2. Then add water until the tank is half-full. This will cushion the laterals when you put the new sand in.
3. After adding each bag of sand, reach in and level out the sand bed.
4. You will need to add as much sand as the manufacturer indicates on the label on the tank. If the label is gone, consult your swimming pool professional.
5. Some labels call for pea gravel; however you can usually substitute sand in place of gravel if you wish (sand weighs approximately 150 pounds to the cubic foot if the amount is in cubic feet and not pounds).
6. After you have added the proper amount of sand, you will need to reassemble the filter tank and/or multiport valve.

**It is very important that you start the system in backwash mode. This will flush out the dust from the sand and also allow the sand to settle completely around the laterals after backwashing.**