

Changing the sand in a Sand-Filter

One regular, routine task that must be carried out every 5-7 years is the replacement of the sand within the sandfilter. It's a horrible, messy, backbreaking job but well within the scope of the average 'DIY'er.

Pool filter sand, like anything else to do with pools, is much more than it may at first appear. When viewed through a microscope, the grains of sand found on beaches, in river beds and at the builders' yard have a rounded shape. This is because the sand has been rolled about in water and all the sharp edges have been worn off. Pool sand, on the other hand, is comprised of almost perfect cubes, with very sharp corners and very flat faces. The sand 'fits together' tightly, leaving microscopic passages between the individual grains. It is the size of these passages that determines the size of the particles that the filter can trap.

New sand is a very efficient filter medium but, with time, the passing water will erode microscopic pits in the flat faces and smooth the sharp edges away. When this happens the filter cannot trap enough suspended matter to keep the water clear, and cloudiness develops.

How to change the sand: - Switch the pump to 'Off' and close all valves, including the rotary valve. Remove the lid of the filter and, immediately underneath, you may see what looks like a large-hole watering can rose. This is the diffuser and must be removed from the filter by gently twisting and pulling. Sometimes it is attached by a screw thread. Often there is pressure relief tube extending up through the diffuser – take care not to damage it.

Now you can get at the sand for removal. Use an empty can, or a small plastic jug, to remove the sand. The old sand should not be used for plants, for building purposes or in a sand-pit. Take care not to damage the plumbing inside the filter – feel your way until you are familiar with the layout of components. Once most of the sand is removed unscrew the 8 or more collectors from the central hub of the lateral assembly for later inspection and/or renewal.

Use water and a little of the remaining sand to scour the inside of the filter vessel; then remove all of the sand. Wash the top and outside of the filter, and the screw threads of the collector hub, with a hose to remove sand grains. Install new collectors if yours appear worn – remember that they have to last for a further 5-7 years! Buy them at a pool-shop but take an old one for comparison because there are many different sizes.

There may be a plate, on the outer surface of the filter, which details the Filter Model and the quantity of sand within it. Very often this is missing or illegible and you will have to guess how much new sand you will need, using the amount of sand removed as a rough guide.

Place a can or plastic jug over the inlet pipe to avoid filling it with sand. Pour new sand into the filter and add water to help it settle. The correct level is to the top of the horizontal section of the upper pipe. (It's simple once you see the inside of a sand-filter.)

Rinse the filter lid, washers, nuts and caps, or lid screw thread as applicable. Refit the diffuser and breather pipe. Examine the filter lid 'O' ring and replace if it is damaged in any way. Wipe the 'O' ring with a thin coating of silicone grease or Vaseline and thoroughly clean the underside of the filter lid and the filter seating. Fill the filter with water, replace the lid and tighten down carefully. Set the rotary valve to 'Backwash' and open the Bottom Drain and Waste valves.

Backwash the sand for several minutes to remove dust, then rinse as normal. Check for leaks during this process. Repeat the cycle until the water runs clear. Set all the Pump-room valves and switches to their 'Normal Running' positions.

Congratulations! You have just renewed the sand and collectors in your sand filter! Now go and rest your back for three days.

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