

FILTRATION

Filtration is the process of removing contaminants from water. Different filters remove specific contaminants. Sand-separation filters (figure 72) remove coarse, heavy particles. Bag and cartridge filters remove coarse particles down to 1-micron sized (very fine) particles. They are available as large or small filters (figures 73 and 74).



Figure 72—Centrifugal type filters remove heavy particles, such as sand, by spinning the water to create a vortex.



Figure 73—Large bag and cartridge filter housings.



Figure 74—Small cartridge filter.

Bag filters are supported in a basket (figures 75 and 76) to prevent them from breaking. Remove and discard spent bag and cartridge filters (figure 77).



Figure 75—New bag and support basket.



Figure 76—Used bag filter in support basket.

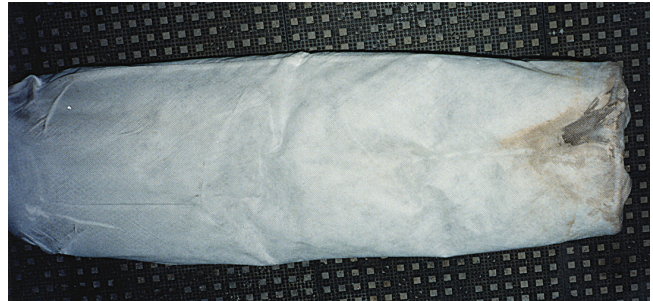


Figure 77—Used bags are discarded.

Rapid sand filters can be manually or automatically backwashed (figure 78).

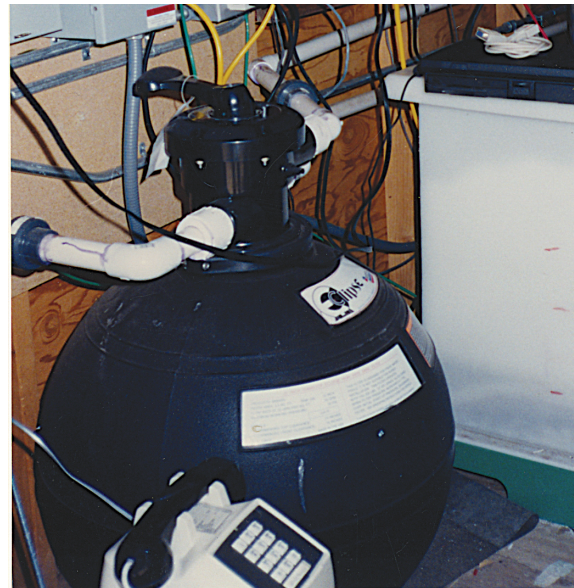


Figure 78—Manually backwashed rapid sand filter.

Install pressure gauges or a differential gauge before and after the filter (figure 79). Replace or backwash filters when the difference in water pressure entering the filter is much higher than the water leaving the filter. This is called differential pressure. Different filter brands are rated for different flows and differential pressure tolerances. Replace or backwash the filter before it ruptures or dumps particles back into the water. Refer to the operation and maintenance manual for information on flow, pressure, and replacements parts.



Figure 79—Pressure gauges installed before and after a bag filter.

