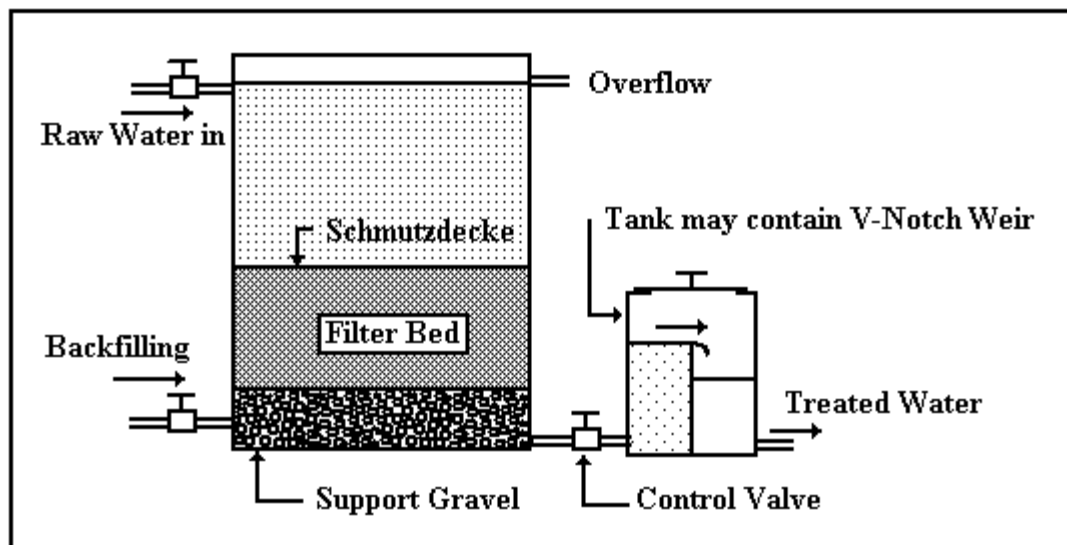


**SLOW SAND FILTRATION:** “Slow sand filtration is a biological process that cleans water much the way the sandy bed of a river cleans and recharges an aquifer. A column of water passes through a three-foot layer of fine sand at the rate of 0.1 gallons (0.38 liters) per minute per square foot or less. On the top of the sand, an intense layer of microbes naturally develops. This layer lives by consuming whatever is passing through in the water. In a slow sand filter, this layer, called the *schmutzdecke*, is responsible for removing up to 99.99% of all bacteria, viruses, Giardia, Cryptosporidium, and parasites through predation. As the water passes through the deeper layers, other processes such as sedimentation, mechanical filtration, and electrical attraction remove still more. The result is that slow sand filters may be the best stand alone water filters known.” Environmental Engineer, Humphrey Blackburn



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“Under suitable circumstances, slow sand filtration may be not only the cheapest and simplest but also the most efficient method of water treatment. Its advantages have been proved in practice over a long period, and it is still the chosen method of water purification in certain highly industrialized cities as well as in rural areas mid small communities. It has the great advantage over other methods that it makes better use of the local skills and materials available in developing countries, and it is far more efficient than rapid filtration in removing bacterial contamination.” --**World Health Organization:**