

## **What is Reverse Osmosis filtration used for?**

*Reverse Osmosis Filtration is commonly used to remove difficult contaminants. RO's can be found on a very small scale in under-sink units designed to make drinking water for a household. RO's can also be very large producing water for an entire facility, town or metropolis!*

*Common contaminants in our area that are commonly removed by reverse osmosis include arsenic, boron, and silica. While Reverse Osmosis filters have very fine, sub-micron filtration capability, and theoretically can filter out cysts, microbes and bacteria, an RO must have appropriate pre-treatment and post treatment before it can be effectively be used in this type of application.*

*Reverse Osmosis filtration is rarely used on a stand-alone basis. Pre treatment/filtration is often done to remove particulate matter and large quantities of iron or manganese. This is done to extend the life the reverse osmosis membranes. A UV light is commonly used in conjunction with RO filters to ensure that any bacteria are effectively deactivated and don't grow in the membranes.*

*Reverse Osmosis filtration produces very pure water which is naturally corrosive to the metal piping in a water system. A filter that distributes calcite into the system should be added to keep corrosion to a minimum. When considering the use of an RO for water treatment, take into account that RO is an energy intensive technology that requires regular, high-level, maintenance. Additionally it should be considered that for every gallon of filtered water a RO system produces, anywhere from 1 to four gallons of wastewater is produced. RO membranes are relatively costly and need to be changed on a regular basis, typically about 5 years, to ensure proper operation and output.*