

S1.2.1 Pre-Filtration for Reverse Osmosis and Membrane Filtration Systems

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This paper will address the need for pre-filtration for optimal performance of reverse osmosis and membrane filtration systems. The ability of pre-filters to remove suspended particulates such as sand, silt, clay, colloids and other contaminants from the feed stream greatly impacts the performance and longevity of any RO/membrane system.

A variety of pre-filtration methods will be reviewed along with their performance, benefits and drawbacks. Types of filters to be discussed include: Sand or Media Filters, Bag Filters, Filter Screens, Cartridge Filters and Automatic Back-washing filters.

Required feed water quality specifications will be discussed along with the methods for measuring and testing the feed water.