

## CON-SERV MFG Methods of Pretreatment prior to membrane filtration

The below chart illustrates different methods of pretreatment prior to using membrane filtration such as MF, UF, or RO. Depending on the Feed water constituents - one, two or a combination of multiple filtrations methods may be required.

Brackish Water	Coarse sand & silt	Suspended matters	Particles	TOC	Colloids	Bacteria
Sand Trap	XXX	X				
Screening	XXX					
Clarification		XXX	X	X	X	
Lime Softening		XXX	XX	XX	XX	O
Coag. Filtration		XX	XX	X	X	
Filtration		XX	X	O	O	
Scavenger Filter				XXX		
Activated Carbon				XX		
Ozone/ Chlorine				XX		XX
Micro Filtration			XXX		O	XX
Ultra Filtration			XXX	O	XXX	XX
Sea Water	Coarse sand & silt	Suspended matters	Particles	TOC	Colloids	Bacteria
Sand Trap	XXX	X				
Screening	XXX					
Coag. Filtration		XX	XX	X	X	
Filtration		XX	X	O	O	
Activated Carbon				XX		
Ozone/ Chlorine				XX		XX
Micro Filtration			XXX		O	XX
Ultra Filtration			XXX	O	XXX	XX
<b>O LOW      X Fairly Good      XX Good      XXX Excellent</b>						

Efficiency of several pre-treatment Steps