

Microfiltration and Ultrafiltration Membrane treatment

Purification treatment for water process, food & beverage

MF/UF Membrane Introduction

Microfiltration (MF) and ultrafiltration(UF) is physical separation processes for removal fine particulates from liquid.

Microfiltration with ratings are normally between 0.02 - 0.1 μm which can remove all bacteria. MF can be implemented in many different liquid treatment processes when particles with a diameter greater than 0.1 mm need to be remove from a liquid.

While for complete removal of viruses, ultra filtration is required.The pores ultrafiltration membrane can remove particles of 0.002 – 0.02 μm from liquid.



Filtration Spectrum

Pore Size, μm	0.001	0.01	0.1	1	10	100
Approx equiv MWCO, kDa	2 - 5	100	500 - 1000			
Relative Size of Common Material	Salts Metal ions	Pyrogens Sugars	Virus Colloidal silica	Bacteria	Yeast Cells	Sand
Membrane Technology	RO	Process UF	UF	MBR	Nominal Cartridge	
	NF			MF WW	Sterilizing Cartridge	

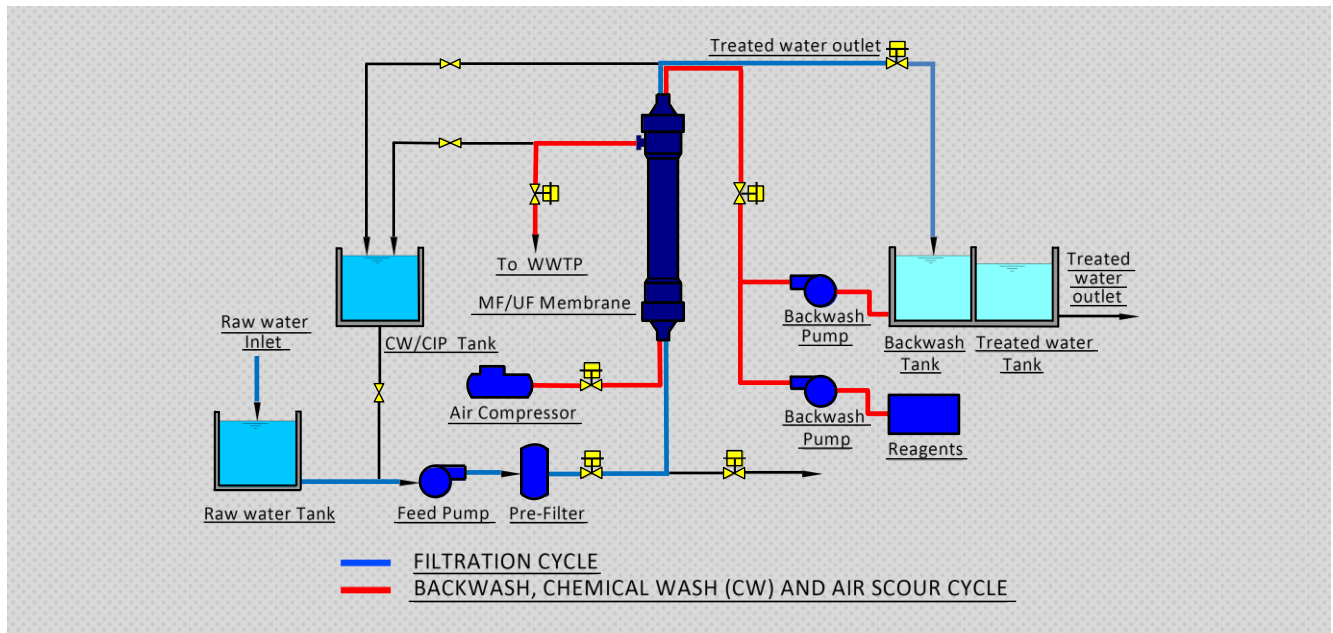
Product Features

- ◆ Can be used in various fields that range from advance processing of the disinfection and removal of bacteria, virus in pharmaceutical and food industry. It also used in process water to processing to recovery and wastewater reuse.
- ◆ Hollow fiber membrane made from polyethersulfone (PES) and polyvinylidene difluoride (PVDF) which have excellent chemical and thermal resistance
- ◆ Module system available to increase flow rate or replacement of element. It reduces waste disposal and running cost
- ◆ Several washing operation methods and stable long term operation

Product Applications

- ▶ RO Pretreatment
- ▶ Electronic (Ultra pure water for washing wafers)
- ▶ Wastewater recycle, Water treatment Process
- ▶ Food and Beverage (mainly UF) ,Fruit Juice Clarification (mainly UF) , Beer (MF) , Wine (MF) , Soy Source (MF) , Vinegar (MF) , Syrup (MF) and removing pathogens from Milk (UF) Which it's also used for sterilizing food and beverage without sacrificing flavor.
- ▶ Pharmaceutical production (UF)

System Arrangement Example



Product Specification of MF/UF Membrane

Product name	Module type	Nominal pore Size / MW (90% Cutoff)	Effective membrane surface area	Allowable Maximum temperature	Housing material	Permeability (L/hr/mod./100kPa) Pure water @25°C	Max pressure (kPa)	Diamention (mm)
MF	MS-8102-HG	0.1 µm	5 m ²	90 deg.C	Polysulfone	5,000<	490	ø 114 x 1,100H
UF	MU-6022-HG	Mw 5,000	5 m ²	90 deg.C	Polysulfone	900	490	ø 114 x 1,100H
	MU-6025-VG	Mw 5,000	7 m ²	40 deg.C	PVC	1,800<		
	MU-6205-HG			90 deg.C	Polysulfone	1,800<		
	MU-6302-VG	Mw 13,000	5 m ²	40 deg.C	PVC	3,000<		
	MU-6302-HG			90 deg.C	Polysulfone	3,000<		
	MU-6305-VG		7 m ²	40 deg.C	PVC	4,000<		
	MU-6305-HG			90 deg.C	Polysulfone	4,000<		

Racks For Pressure Driven



Remarks :

- Wide range of product besides above item are available.
- Provide extension module racks depend on the capacity requirement.
- All designs and specification will be subject to change with or without prior notice.

* While developing one resource, we carefully protect the other.