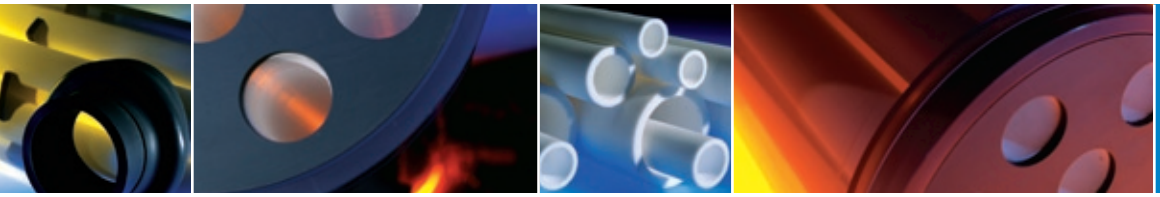


FILTRATION

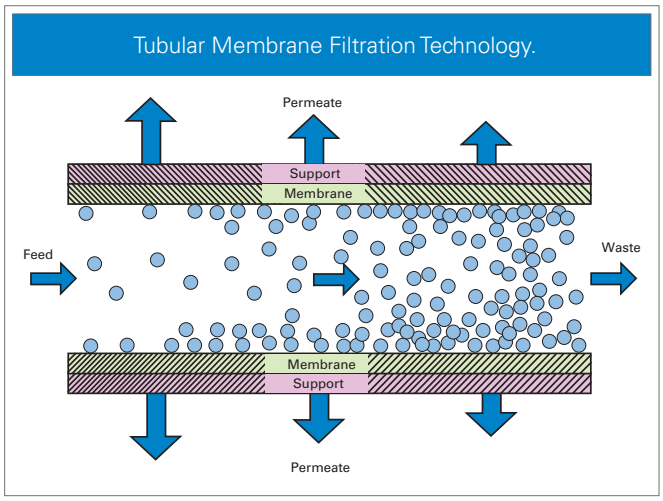
POREX® Tubular Membrane Filter (TMF) Modules

What is Tubular Microfiltration and Ultrafiltration?

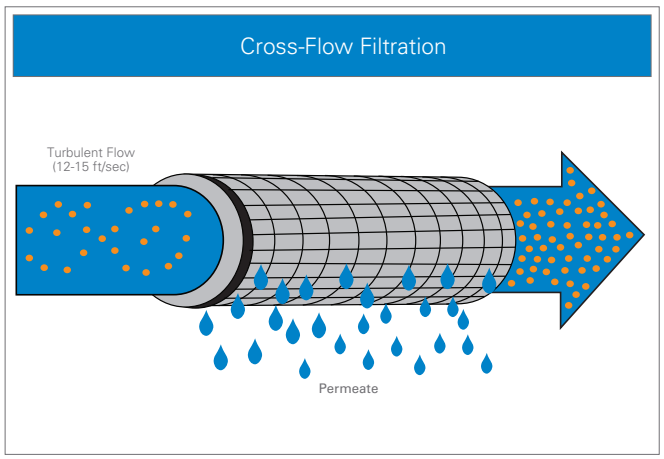
Microfiltration (MF) is a low pressure (0.7 – 7 bar, 10-100 psig) separation process for separation of 0.1 µm and larger size solutes from aqueous solutions by means of a semi-permeable membrane. Ultrafiltration (UF) is also a low pressure separation process for separation of solutes in the size range from 0.01 µm to 0.1 µm.

In Tubular Microfiltration and Tubular Ultrafiltration, this process is carried out by having a process solution flow along a membrane surface under pressure. Retained solutes (such as particulate matter) leave with the flowing process stream and do not accumulate on the membrane surface. This is also called Cross-flow filtration.

The image below shows fluid passing through the membrane barrier with the filtrate (product) on the downstream side of the barrier and the particles remaining on the upstream side of the barrier.



In Cross-flow filtration, the fluid flow is tangential to the filtration surface. This design provides turbulence at the membrane surface which prevents build-up of particulates and continuously flushes away the concentrated solids.



In Porex Tubular Membrane Filter (TMF) modules, the membrane is made in a tubular design, where the membrane is deposited in the wall of a PVDF or PE substrate tube. Tubular Membranes are bundled together in modules and the modules are linked together to create a filtration system.

POREX

www.porexfiltration.com
info@porexfiltration.com

Porex Filtration

500 Bohannon Road
Fairburn, GA 30213 USA

T 770.515.7700
US Toll Free 866.515.7783

F 770.515.7799
E info@porexfiltration.com