

MULTI-BORE CAPILLARY MEMBRANE

In search of superior membrane, GDP Filter keeps on innovating membrane formulation and structures.

One of our best achievement is the **Multi-Bore Capillary Membrane** produced since 2009.

Greatly robust with higher packing density, **Multi-Bore Capillary Membrane** significantly reduce cost without sacrificing quality.

It is indeed a combination of high hydrophilicity, excellent selectivity, and superb mechanical stability.

7-Bores, 19-Bores, and 37-Bores Ultrafiltration Capillary Membranes are available.



Outside-In Operation



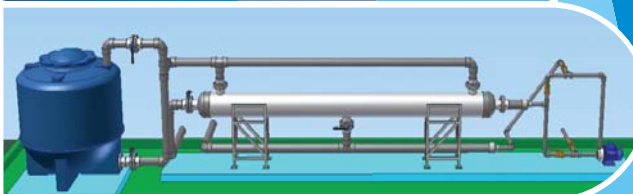
Inside-Out Operation



CFD simulation shows evenly permeation distribution on multi-bores operation whether inside-out or outside-in configuration, as shown on the figure above.

COST-EFFECTIVE MEMBRANE UNIT

NON-MODULAR MEMBRANE SYSTEM



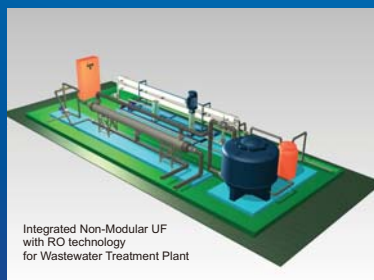
Membranes are more expensive in the larger production scale, require a lot of instruments, pumps, and a more complex piping system. Therefore, modules with larger diameter are preferred in some applications to minimize the number of module in membrane unit.

INDONESIA PATENT P00201000408



Type	Nominal Diameter	Nominal Length	Product Capacity
UF 1202-NM	12"	2 m	Up to 15 m ³ /hour
UF 1204-NM	12"	4 m	Up to 30 m ³ /hour
UF 1602-NM	16"	2 m	Up to 30 m ³ /hour
UF 1604-NM	16"	4 m	Up to 60 m ³ /hour
UF 2402-NM	24"	2 m	Up to 60 m ³ /hour
UF 2404-NM	24"	4 m	Up to 100 m ³ /hour
UF 2406-NM	24"	6 m	Up to 150 m ³ /hour

***System recovery up to 95 - 100%**



Integrated Non-Modular UF with RO technology for Wastewater Treatment Plant



UF-LPRO Water Treatment Plant using non-modular UF as RO pretreatment

Non-modular membrane system has been developed and patented by GDP Filter Indonesia. This invention relates generally to the improvement in Multi-Bore Capillary Membrane fiber or hollow fiber cartridge assembly for minimizing membrane cost in larger plant.

Membrane surface area in the module can be adjusted to desired capacity, so membrane in the previous modular process can be simplified in a piece of equipment.

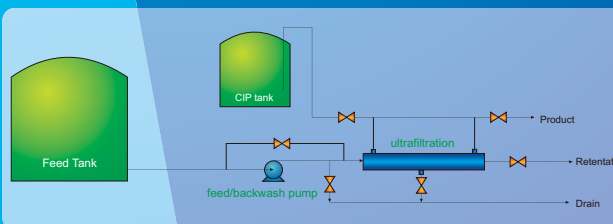
This system has been proven to give better performance with lower investment cost in large water treatment unit using multi-bore capillary ultrafiltration membrane.

The system is designed to use only 1 pump for either feed circulation or backwash to minimize investment cost.

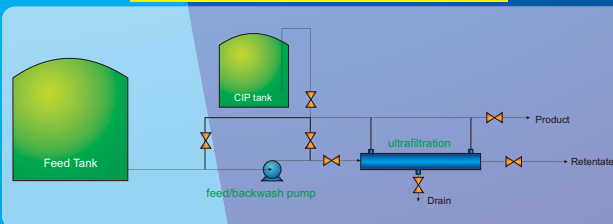
Advantages :

- Easier operation,
- Less instruments,
- Simple piping and installation,
- More economical membrane process in larger capacity.

SUCTION BACKWASH SYSTEM



DISCHARGE BACKWASH SYSTEM



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