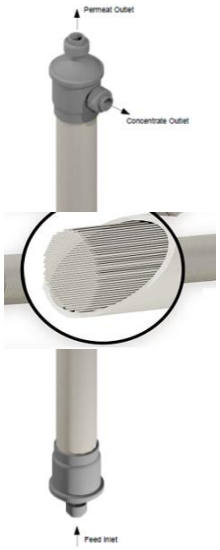
Hollow Fiber Nanofiltration Membrane

NÜF® N80-6060 NF element

Feature

With breakthroughs in membrane materials and element structure, Ochemate Advanced Material Technologies Co. Offers NÜF® N80-6060 nanofiltration membrane elements with hollow fiber structure for industrial and municipal application. NÜF® N80-6060 has super-high permeability under extremely low pressure and provides unique comprehensive advantages for industrial and municipal users.



- High hardness removal, high efficient toxic metals removal such as copper, cadmium, chromium, lead, mercury, antimony and arsenic.
- High small organic molecule removal (such as antibiotics, endocrine disruptor, etc.) and reduce COD in water.
- Under 3.0 bar operating pressure, the membrane flux can exceed 30 LMH. Compared with the competitors, the operating pressure of N80-6060 element is 35% lower under the same flux.
- Outside-in structure of NÜF® N80-6060 makes elements high anti-fouling and easy to clean.

Hollow fiber nanofiltration membrane NÜF® N80-6060 NF element can efficiently remove hardness and achieve partial desalination for industrial applications. For municipal application, NÜF® N80-6060 NF element can efficiently remove hardness, sulfate, fluoride, heavy metals, small organic molecule and PPCPs to ensure the safety of water supply. Compare with competitors, NÜF® N80-6060 NF element has higher flux, lower energy consumption, high fouling resistance and is easy to clean.

NÜF® N80-6060 NF element has the typical characteristics of all NÜF® product series:

- Unique hollow fiber structure.
- Low operating pressure, high permeate flux.

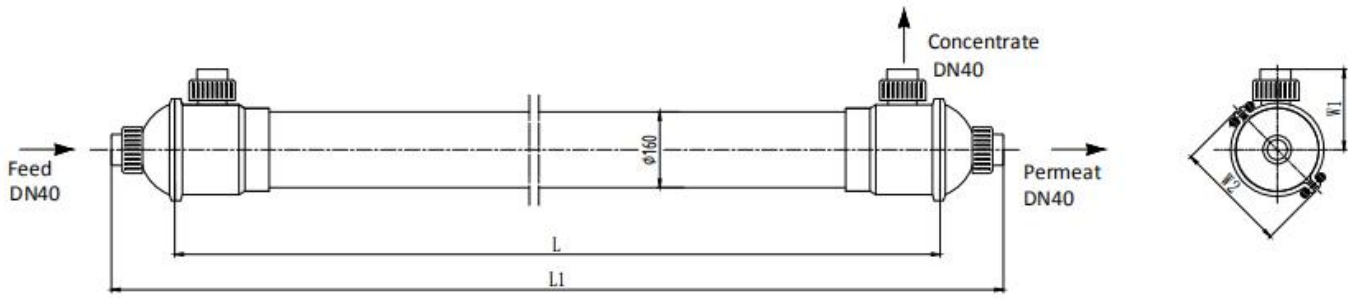
Product Types TPFP integrated film forming technology & modified polyamide as base material.

Product Specifications

Product	Active area (m^2)	Applied pressure (psig)	Applied pressure (MPa)	Permeate flow rate (gpd)	Permeate flow rate (L/min)	Stabilized salt rejection (%)	
N80-6060	55	45	0.31	8750~11000	24~30	$MgSO_4$	⩾90%
						$CaCl_2$	⩾60%
						NaCl	⩽25%

1. Test Standard of Permeate flow rate and salt rejection rate:
   45psi (0.31MPa), 2000ppm $MgSO_4$, 15% recovery rate, 25°C.
   45psi (0.31MPa), 250ppm $CaCl_2$, 15% recovery rate, 25°C.
   45psi (0.31MPa), 250ppm NaCl, 15% recovery rate, 25°C。
2. Permeate flow of single element may be different and vary +/-20%.
3. The above specification values are nominal test values. When operating, please follow the design guidelines of NÜF® membrane system.

Element Dimensions



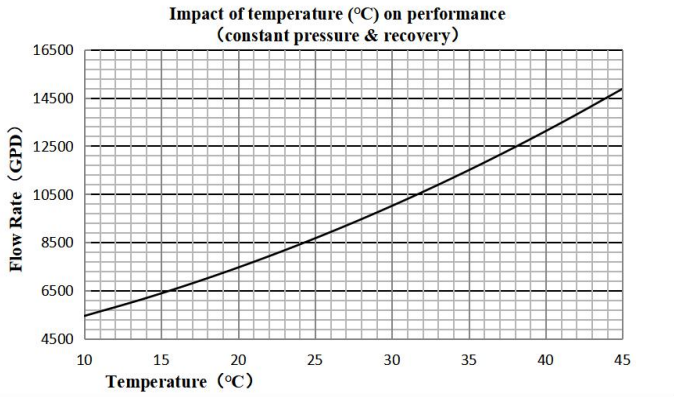
Dimensions (mm)	L	L1	D	W1	W2
N80-6060	1500	1768	Φ160	170	260
Commercial NÜF® N80-6060 NF elements can be used without pressure vessels.					

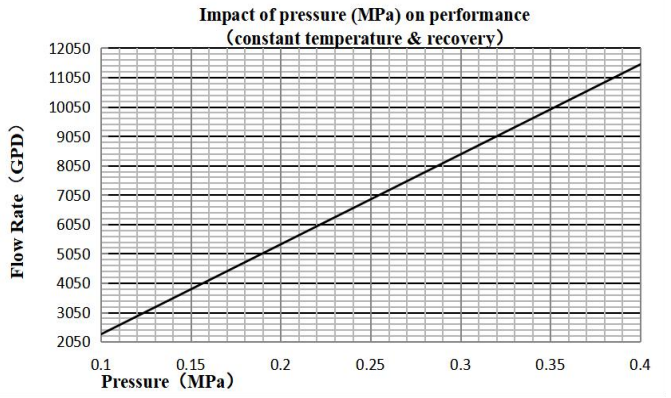
Guidelines

Recommended operating temperature	5°C ~ 45°C (113°F)
Recommended operating pressure	0.1 ~ 0.4 MPa (58 psi)
Recommended operating pH range	4 ~10
Feed water SDI_{15}	<5
Recommended feed water residual chlorine	<0.1 ppm

* Note: The tolerance range of pH is a parameter at 25 °C.
When the temperature increase, the tolerance range will narrow.

Other Information





* Note: High operating flux can be obtained at very low operating pressure.

General Information

- At the first use, it is suggested that rinse the protective agent from NÜF® membrane through connecting water for one hour. Please discharge the permeate water from this one hour.
- Membrane elements should always be kept moist after initial use.
- Membrane elements have a short-term resistance to free chlorine and other oxidants. Long-term contact may lead to damage of membrane fibers. Continuous exposure of membrane components to free chlorine or other oxidants should be avoided.
- Back pressure on the permeate side should be avoided at all times.

Operation Guidelines

- In order to ensure the normal use of NÜF® membranes and avoid damage, the regulations on packaging, transportation and storage of NÜF® membranes should be strictly observed. Sudden pressure changes should be avoided during start-up, shutdown, cleaning and other processes to prevent damage to the membrane.
- Before starting the system, the membrane pretreatment, membrane module installation, piping, valves, instrumentation and other systems should be checked.
- The system with NÜF® elements should be started correctly, and the correct start-up procedure should be followed. NÜF® membrane system should be flushed before start-up to remove transportation protective agent.
- The automatic operation, cleaning and shutdown of the NÜF® membrane system should comply with the corresponding procedures and operating specifications.
- For more details, please refer to the product technical manual.

Important Notes Limited warranty of products will be invalid if the operation requirements in this specification and product technical manual are not strictly observed.

Please contact your Ochemate Representative for more information, and to discuss any other options that may benefit or be required for your NÜF® application.

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