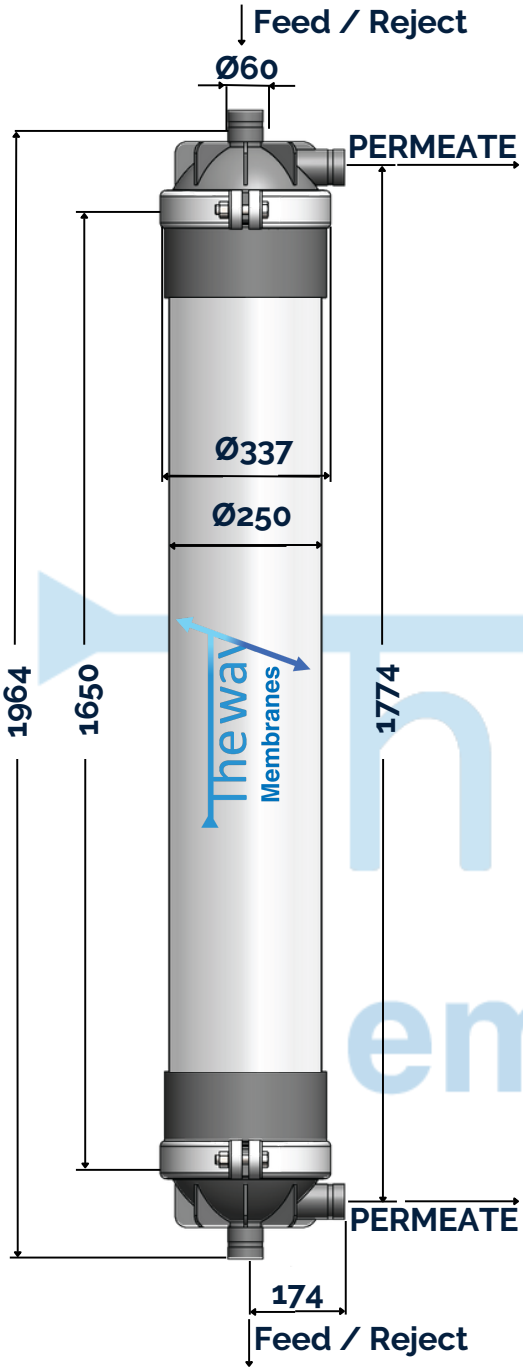
The way
Membranes

STREAM SERIES
TW 250 / 1650 DataSheet

TW STREAM 250 / 1650



TECHNICAL SPECIFICATIONS	
Type	Hollow Fiber
Model	TW STREAM 250/1650
MOC Membrane	PES / PVDF
Body	PVC
Potting	Proprietary Epoxy
Cap	PVC/PP
MWCO	100 kDa
Area	80 m^2
Size of Fiber	1.2 mm OD x 0.6 mm ID
Flow	Out - In
Operating Mode	Cross Flow / Dead End
Feed Pressure	3 Kg/cm^2 (Max) *
Tr Memb Pressure	1 Kg/cm^2 (Max)
Backwash Pressure	2 Kg/cm^2 (Max) **
Operating pH	2 to 11
Operating Temp	20°C-45°C
Feed Flux	20 - 100 $L/m^2/Hr$
Backwash Flux	40 - 150 $L/m^2/Hr$***
Filtration Time	15-60 Minutes
Backwash Time	20-60 secs
Flushing Time	20-60 secs

Note:
- All Dimensions are in mm
- Parameters are subject to change according to Feed quality /site conditions.
- General Tolerance +/- 5%

* This pressure exposure, should not be a shock or water hammer. Refer to temperature dependence of pressure as mentioned in "Operating Specification." While max feed pressures is mentioned as 3 bars, it is to be noted that operating pressure are to be set at 1-1.2 bars max.

** Exposure time < 5 seconds for pressures between 2 and 3 bars. Sudden changes in pressure are to be avoided. Ensure that changes in pressure are applied slowly (Typically 0.02 bar /sec). Refer to temperature dependence of pressure as mentioned in "Operating Specification" in next page.

*** System pressure should never exceed above mentioned backwash pressure. Pressure takes precedence over designed Backwash flux set value according to projection. If no projection given by Theway Membranes, backwash operating pressure to never exceed 2 bars. Operating backwash fluxes are generally <100 LMH for longer and safer operation of membrane. >100 LMH is chosen only for in special cases where regular backwash is not sufficient. Please liase with Theway Membranes and seek approval in case you would like to operate at >100 LMH. Remarks: For all the above notes, refer to temperature dependence of pressure as mentioned in "Operating Specification" in next page.

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Ultrafiltration (UF) is a pressure-driven membrane based specification process to remove suspended solids, bacteria, viruses, endotoxins and other pathogens to produce water with very high purity and low silt density.

Operating Specification

Maximum System Pressure (*) (kPa)		Maximum Transmembrane Pressure (kPa)		Maximum Backflush Pressure (kPa)		Maximum Opera ng Temperature (°C)
0-20°C	300	0-20°C	100	0-20°C	200	45 *
20-25°C	275	20-25°C	95	20-25°C	175	
25-30°C	250	25-30°	90	25-30°	150	
25-30°C	225	30-35°C	85	30-35°C	125	
35-40°C	200	30-35°C	80	30-35°C	100	

(*) Final maximum operating limits are determined by the lowest values of the membrane and element pressure and temperature Specification

> Backwash water should be free of particulates and should be permeate quality or better.
> Backwash pumps should be preferably be made of non -corroding materials e.g., plastic or stainless steel. If compressed air is used to pressurize the backwash water, do not allow a two-phase air/water mixture to enter the element.
> To avoid mechanical damage, do not subject the membrane module or element to sudden temperature changes, particularly decreasing. Do not exceed 40°C process temperature. Bring the module or element back to ambient operating temperature slowly (Typical value 1°C/min). Failure to adhere to this guideline can result in irreparable damage.

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Important Guidelines

Proper start-up of an ultrafiltration system is Important to prepare the membranes for operating service and to prevent membrane damage. Following the proper start-up sequence also helps ensure that system operating parameters conform to design specifications so that system water quality and productivity goals can be achieved. Before initiating system start-up procedures, membrane pretreatment, of the membrane modules, instrument calibration and other system checks should be completed.

Operation instruction

Avoid any abnormal pressure difference during start-up, shutdown, cleaning or other sequences to prevent possible membrane damage. Flush the ultrafiltration system to remove shipping solution prior to startup. Remove residual air from the UF system prior to start-up. Manually start the equipment. Depending on the purpose, filtrate obtained from initial operations should be discarded.

General Notes

- If operating limits and guidelines given in this bulletin are not strictly followed, the limited warranty will be null and void.
- To control biological growth during extended system shutdowns, it is recommended that storage solution be injected into the membrane modules.

Product Stewardship

Theway Membranes has a fundamental concern for all who manufacture, distribute, and use itsproducts, and for the environment in which we live. This concern is the basis for our product stewardship philosophy by which we assess the safety, health, and environmental information on our products and then take appropriate steps to protect employee, public health and our environment. The success of our product stewardship program rests with each and every individual involved with us – from the initial concept and research, to manufacture, use, sale, disposal, and recycle of each product.

Customer Notice

Theway Membranes strongly encourages its customers to review both their manufacturing processes and their applications of Theway Membranes from the standpoint of human health and environmental quality to ensure that Theway Membranes are not used in ways for which they are not intended or tested. Theway Membranes personnel are available to answer your questions and to provide reasonable technical support. Theway Membranes literature, including safety data sheets,should be consulted prior to use of Theway Membranes

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Direct Retrofit/ Replacement

Are you in the market for the replacement of existing Ultrafiltration membranes in the plant that you are working with? Theway Membranes' reliable and robust membrane retrofits/replacements will help you avoid costly expenditure in replacing these expensive UF membranes.
There are multiple levels of exactness to the existing UF membranes you seek to replace

a) Performance Equivalence (Surface Area equivalence)
b) Membrane fiber dimension equivalence
c) Molecular weight cut-off equivalence
d) Membrane material equivalence
e) Module dimension equivalence
f) Module port-size equivalence
g) Form and Shape equivalence
h) Operation philosophy equivalence

***Guide for Equivalence level**

8 Operation philosophy, Form and shape, Module port size, Module dimension, Membrane material, Molecular weight cut-off, Membrane fiber dimension and performance equivalence

7 Form and shape, Module port size, Module dimension, Membrane material, Molecular weight cut-off, Membrane fiber dimension and performance equivalence

6 Module port size, Module dimension, Membrane material, Molecular weight cut-off, Membrane fiber dimension and performance equivalence

5 Module dimension, Membrane material, Molecular weight cut-off, Membrane fiber dimension and performance equivalence

4 Membrane material, Molecular weight cut-off, Membrane fiber dimension and performance equivalence

3 Molecular weight cut-off, Membrane fiber dimension and performance equivalence

2 Membrane fiber dimension and performance equivalence

1 Performance equivalence

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Theway Membranes

Retrofit Table

MAKE IN INDIA

Retrofit Model	Equivalent Theway Model No	Equivalence level*
Dupont SFP 2860	Sierra 51	8
Dupont SFP 2880	Sierra 77	8
Norit/Pentair X flow Aquaflex 20	Agua 20	7
Norit/Pentair X flow Aquaflex 40	Agua 40	7
Norit/Pentair X flow Aquaflex 55	Agua 55	7
Norit/Pentair X flow Aquaflex 64	Agua 64	7
Norit/Pentair Xiga 40	Twiga 40	7
Norit/Pentair Xiga 55	Twiga 55	7
Norit/Pentair 64	Twiga 64	7
Norit/Seaflex 40	Trident 40	7
Norit/Seaflex 55	Trident 55	7
Norit/Seaflex 64	Trident 64	7
Norit/Seaguard 40	Poseidon 40	7
Norit/Seaguard 55	Poseidon 55	7
Norit/Seaguard 64	Poseidon 64	7
Suez ZW 1500	Vatten 55	8
Hyflux K600ETI - 55	Supraflux 55	7
Hydranautics Hydra Cap - 40A	Puran 40	8
Hydranautics Hydra Cap- 60A	Puran 60	8
Hydranautics Hydra Cap - Max40	Puran Max40	8
Hydranautics Hydra Cap - Max60	Puran Max60	8
Hydranautics Hydra Cap - Max80	Puran Max 80	8
Koch TARGA II 10072-35	Torrens 100	8

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TW 160/1100
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TW 200/1100
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TW 250/1100
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TW 315/1100
TW 315/1650

Our Products

- Ultra Filtration Membranes
- Beer Filtration Membranes
- Wine Filtration Membranes
- Retrofit Membranes
- Direct Retrofit/Replacement
- Membrane Distilation Membranes
- Hydrophobic PTFE Membranes
- Hydrophobic PVDF Membranes
- Dialysis Membranes
- Gas Separation Membranes
- Special Membranes

Contact Us

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