

SNF-GK

# Nanofiltration 6000 gpd



# Daily production chart (liters/day)

### STD (NaCl) à l'entrée (mg/l)

°C/°F		2 000
25/77	(gpd)	6 000
	(lpd)	22 710
15/59	(gpd)	5 112
	(lpd)	19 349
5/41	(gpd)	3 744
	(lpd)	14 171

 $<sup>^{\</sup>ast}$  Inlet water parameters used for calculations : raw water at 25°C. SDI < 3, no counterpressure.





# Components

1" FNPT Inlet valve Inlet filter 5 microns, 114 x 508 mm (4,5 x 20") Pressurization pump Submersible booster pump Stainless steel 316 3/4 HP NEMA 208-240VAC/1ph/60Hz 208-575VAC/3ph/60Hz Low pressure protection Pressure switch **PVC 4040** Membrane housing Membrane type TFC - Nanofiltration 102 x 1 016 mm (4" x 40") Membrane dimensions Number of membranes Membrane surface m<sup>2</sup>(pi<sup>2</sup>) 22,8 (246) Recirculation control Manual flow control Regulation valve (flow/pressure) Drain control Reject flow meter 0-37,9 lpm (0-10 gpm) Permeate flow meter 0-18,9 lpm (0-5 gpm) Float/contact device System shutoff control Inlet water quality monitor 0-1 000 μS 0-500 μS Permeate water quality monitor

### Connections

Display screen

Electric power supply

208-240VAV/1ph/60Hz, 9,2/8,0 Amp.
208-575VAC/1ph/60Hz
Other power supply configurations
available on demand

Inlet
1" FNPT
Permeate
3/4" MNPT
Reject
3/4" MNPT
PūreRince process
1/2" FNPT

Printed circuit board, 2 line screen

# Feed water

Inlet pressure 25-50 psi (1,7 - 3,4 bar) Operating pressure 60-90 psi (4,1 - 6,2 bar) Temperature 4 - 30 °C 2 - 11 SU Chlorine (Max.) 0,05 mg/l Hardness (Max.) 103 mg/l (6 gpg) Iron (Max.) 0,3 mg/l Silica (Max.) 10,0 mg/l Total dissolved solids (Max.) 3 000 mg/l

### Operating specs

Permeate flow rate \* 15,8 lpm (4,17 gpm) Reject flow rate @ 65 % 8,5 lpm (2,24 gpm) Daily production 22 710 I (6 000 gal) Recovery ratio 65-75 % 5 minutes Rinse time Rinse volume (Min.) 37,9 I (10 gal) Width x Depth x Height 838 x 457 x 1 372 mm (33 x 18 x 54") Shipping / operating weight 132/181 kg (290/400 lbs)

### **Options**

Raw water conductivity probe
Reject water conductivity probe
BACnet or Modbus communication protocols available
Direct feed
Programmable logic controllers (PLC)
Stainless steel piping (316)
Alternate or auxiliary pump

# Nanofiltration 6000 gpd

# Technical specifications: Commercial and industrial nanofiltration systems

# Operating profile

The system uses reverse nanofiltration technology to remove micropollutants, to improve color and reduce total dissolved solids (TDS) level in water by a minimum of 95%, depending on raw water quality. System contains its own pressurization system to optimize the production of water through the membranes. System operating pressure should be between 60 and 90 psi (4,1 and 6,2 bar). System functionalities include monitoring and regulating devices to adjust the system's operating pressure. The system contains an electric inlet valve that closes when a tank full or a problem signal is received. A low pressure switch serves to protect pump from cavitation damage during low pressure occurrences. On/Off cycling is based on a normally open dry contact (ex.: level float switch), a pressure switch or an external contact. The unit is equipped with audible and visual alarms as well as a fused disconnect switch.

# Pump design

Units use a multi-stage vertical stainless steel submersible pump. Pump motor is 3/4 HP (60Hz) or 1 HP (50Hz) and NEMA rated.

# Membranes and housings

System uses 3 TFC nanofiltration membranes in a spiral wound configuration. Each membrane size shall be  $102 \times 1016$ mm (4.0" x 40") with an area of 7,6 m². Each membrane and housing shall be rated for a working pressure to 225 psi (15,5 bar). Housings shall be mounted in a vertical configuration.

## Plumbing configuration

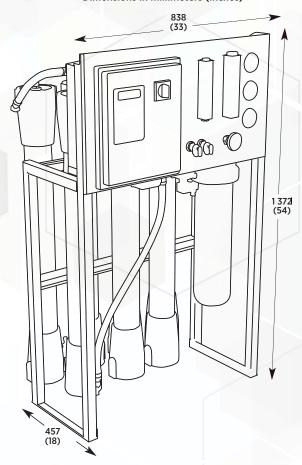
System incorporates a reject recovery design and provides for an adjustable internally recirculated flow rate. Reject flow is controlled by a pressure regulating valve. During a shut down mode, the feed side of the membrane shall be flushed with at least 5 housing volumes of permeate water. PūreRince cycle shall be automatic with each shutdown.

#### Skid

The system in assembled on a corrosion resistant stainless steel frame. The unit will not weight more than 181 kg during operation.



#### Dimensions in millimeters (inches)



### Distributed by





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