

# GENERON®

## MEMBRANE MODULES MODEL 4100CP



Reliable Nitrogen Membrane modules are the heart of a nitrogen generation system. GENERON® membrane modules have been at the forefront of the industry for over 40 years. Our research and development team in California work to continually improve the performance and durability of our membranes.

By supplying the GENERON® membrane modules with compressed air, they will generate a nitrogen stream suitable for an array of industries, including beverage, laboratory, food, controlled atmosphere, pharmaceutical, chemical, textile, heat treatment, electronics, and many more.

### Features & Benefits:

#### **Over 40 years of Manufacturing and Engineering**

GENERON® Membranes have been the benchmark of the industry and proud to have shipped over 250,000 membranes around the world.

#### **Save Energy:**

GENERON® Membrane modules offer the highest efficiency in the market, reducing your compression.

#### **Quality Guaranteed:**

Every GENERON® Membrane module is rigorously tested to the highest standards in one of our ISO 9001 certified facilities.

#### **Easy Start Up:**

GENERON® Systems are delivered ready to start and deliver nitrogen.

#### **Suited for Tough Environments:**

GENERON® Membrane modules are built to withstand even the roughest operating conditions, including the harsh offshore environment.

#### **Reduced Footprint:**

GENERON® Membrane modules have the highest productivity in the industry and can have a 30% smaller footprint, allowing for horizontal or vertical installation, and adaptable to any space requirement.

### Operating Conditions

Max Pressure:	200psig (14.0 barg)
Temperature (Min/Max):	40°F-131°F (4.4°C- 55°C)
Max Relative Humidity:	80% (no liquid water)
Max Particle Size:	0.01 Micron

### Mechanical Description

Outer Diameter:	4 1/2 inch (114mm)
Length:	36 1/2 inch (927 mm)
Weight:	17 lbs (7.7kg)
Case Material:	6061-T6 Aluminum

# GENERON MEMBRANE MODULES - MODEL 4100CP

## Nitrogen Product Flow Rate at 77°F (25°C) vs. Product Purity

### Nitrogen Product Purity in Vol% and Product Flow Rate in Nm<sup>3</sup>/h (SCFH)

Pressure barg (psig)	95%	96%	97%	98%	99%	99.5%
6.9 (100)	15.9 (614.3)	13.4 (517)	11.1 (426.2)	8.8 (339.8)	6.5 (252)	5.1 (196.6)
8.5 (125)	21.0 (808)	17.6 (679.7)	14.5 (559.8)	11.6 (446)	8.6 (330.2)	6.7 (257.1)
10.0 (145)	25.8 (993.8)	21.7 (835.7)	17.8 (687.9)	14.2 (547.6)	10.5 (404.9)	8.2 (314.9)
11.0 (160)	29.1 (1122.9)	24.5 (994)	20.2 (776.8)	16 (618.21)	11.8 (456.7)	9.2 (354.9)
12.1 (175)	32.5 (1252.7)	27.3 (1052.8)	22.5 (866.1)	17.9 (688.9)	13.2 (508.6)	10.2 (395)

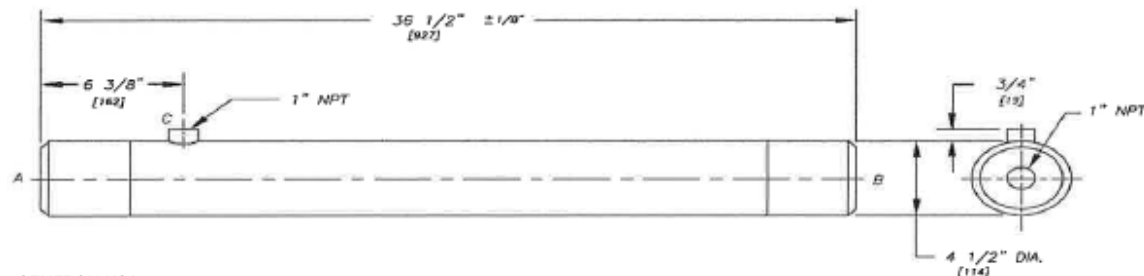
## Air Recovery Rate at 77°F (25°C) in [%] vs. Product Purity

Pressure barg (psig)	95%	96%	97%	98%	99%	99.5%
6.9 (100)	49.5%	45.8%	41.6%	36.8%	30.3%	25.2%
8.5 (125)	50.8%	47.1%	42.9%	38.0%	31.5%	26.4%
10.0 (145)	51.7%	47.9%	43.8%	38.9%	32.4%	27.2%
11.0 (160)	52.1%	48.3%	44.2%	39.3%	32.8%	27.7%
12.1 (175)	52.4%	48.7%	44.5%	39.7%	33.2%	28.1%

## Porting Configuration

Connection	Size
A-Feed	1" FNPT
B-Product	1" FNPT
C-Permeate	1" FNPT

1. Seal connections with Teflon Tape or Formula 8 Thread Sealant only.
2. Standard Conditions: 77°F (25°C) and 14.7 psi (1 atm)
3. Performance after 1 year (9,000 hours) of continuous operation.



GENERON USA  
16250 Tomball Pkwy  
Houston, Texas 77086  
Phone: 713.937.5200  
Fax: 713.937.5250  
www.generon.com

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