

Parker OEM Nitrogen Generators

Parker Hannifin Corporation's OEM approach offers proven innovative membrane technology to provide a continuous source of nitrogen. Volumetric flows cover the range from 5 - 7,000 SCFH. Our membrane systems offer exceptional performance coupled with a wide array of sizes and configurations to meet your equipment needs.

Features

Supply reliable, efficient and economical nitrogen, on-demand for your customers

Take control of the nitrogen utility and offer it with your equipment

Integrate into your equipment or provide as an independent system

Design assistance available

Unlimited nitrogen at your specification

Relieve your customers of the hassle of high pressure cylinders or bulk nitrogen supply

Summary

On-board nitrogen is a value-added expansion of many companies' product lines. The ability to provide a complete solution, including the nitrogen utility, can increase opportunities for new as well as retrofit sales.

Parker Hannifin develops and manufactures a range of Nitrogen Membrane Modules which offer the OEM customer the ultimate in design flexibility and product performance.

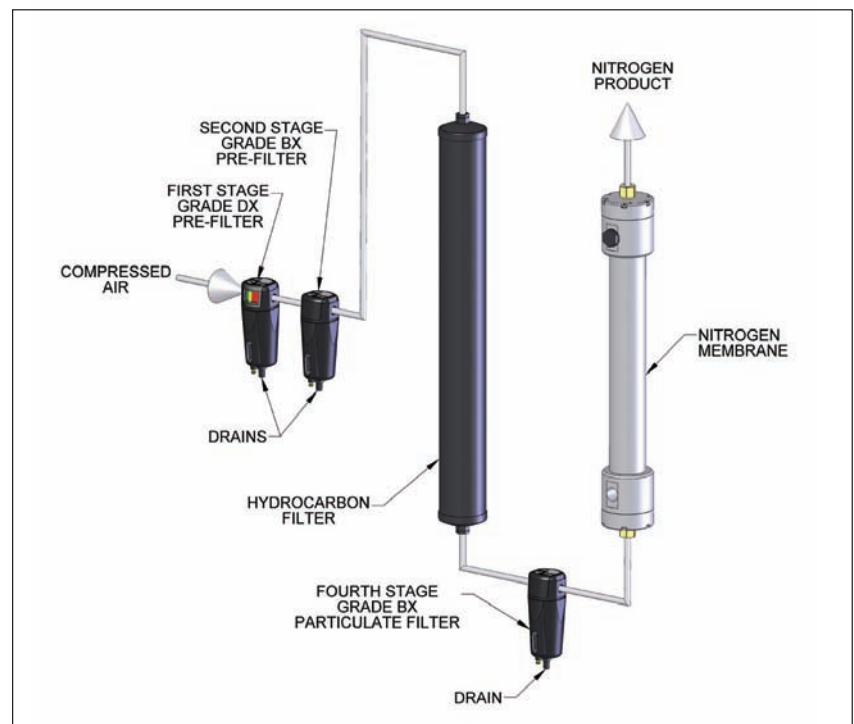
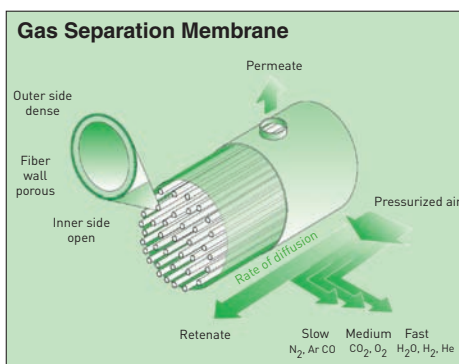
Components

Parker Hannifin Corporation is a leader in both coalescing filtration technology and nitrogen generation. Nitrogen generation prefiltration components are available separately and ready for incorporation into the OEM system. Parker Hannifin Corporation provides sample design information but allows the OEM to define the final design parameters.



Design Criteria

The data section on the next page of this bulletin provides the performance specifications and required inlet compressed air conditions for the OEM membrane nitrogen modules available. Design criteria start with the source of compressed air, its flow, pressure and quality, the desired nitrogen product flow and purity, and the nature of the nitrogen use, i.e., continuous or intermittent.



Nitrogen Module Specifications

OEM Membrane Module Performance (1)

Minimum Flow Rate in SCFH for Nitrogen Purities @ 100 psig, 70°F

Nitrogen Module	99.5%	99%	98%	97%	96%	95%
NM-14	--	--	5.2	9.8	12.9	13.6
NM-40	--	10	18	25	32	40
NM-89	--	25	42	58	73	89
NM-214	48	72	108	136	177	214
NM-321	--	87	151	203	263	321
NM-519	--	138	240	325	417	519
NM-962	164	233	383	522	696	870
NM-1250 (2)	183	287	494	678	839	1044
NM-1667 (2)	243	383	661	904	1148	1391
NM-6992 (3)	--	1879	3094	4209	5601	6992

Notes:

1 For performance at other operating conditions, please contact your local sales representative at 1-800-343-4048.

2 For pressures > 115 psi, use suffix "-H".

3 Max pressure is 115 psig.

The Parker Membrane is unique because it is the most permeable membrane in the world and is also one of the most robust. This results in a low cost of ownership, long membrane life, small size, temperature stability, and systems that are highly cost effective.



Membrane Module Specifications and Operating Conditions

Operating Conditions

Min/Max Operating Pressure	60 psig - 189 psig
Ambient Temperature Range	36°F - 122°F / 2°C - 50°C
Compressed Air Temperature Range	36°F - 122°F / 2°C - 50°C (4)
Inlet Residual Oil Content	< 0.01 mg/m ³
Inlet Particle Prefiltration	0.01 Micron
Relative Humidity of Compressed Air	<100% (Non-condensing)
Electrical Requirement	None

Nitrogen Principal Specifications

Pressure Drop	< 4.5 psid (5)
Atmospheric Dewpoint Range	-20°F to -80°F (-29°C to -62°C)
Particles > 0.01 Micron	None with Prefiltration
Nitrogen Purity	95% to 99.5% - see chart below

Notes:

4 Inlet air temperature must be within 10°F of ambient temperature.

5 Module only.

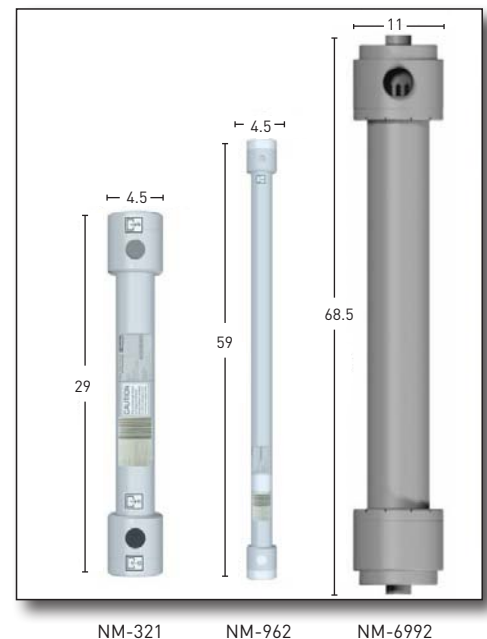
Nitrogen Module Specifications

OEM Nitrogen Module Specifications

Nitrogen Module Part #	Dimensions	Dimensions (CM)	Shipping Wt. (lbs)	Connection Size (NPT)
NM-14	14.7 x 1.6 dia	37.4 x 4.0 dia	1	1/4"
NM-40	15.2 x 3.2 x 2.5	38.7 x 8.0 x 6.3	5	1/4"
NM-89	29.8 x 3.1 x 2.5	75.7 x 8.0 x 6.3	7	1/4"
NM-214	29.8 x 2.5 x 5.7	75.8 x 6.3 x 14.5	14	1/4"
NM-321	29 x 4.5 dia.	73.6 x 11.4 dia	12	1/2"
NM-519	29 x 5.5 dia	73.6 x 13.9 dia	12	1/2"
NM-962	59 x 4.5 dia	149.8 x 11.4 dia	20	1/2"
NM-1250	67 x 11.7 x 5.7	170.3 x 29.6 x 14.5	40	3/4"
NM-1667	67 x 11.7 x 5.7	170.3 x 29.6 x 14.5	40	1"
NM-6992	68.5 x 11 dia.	174 x 28.0 dia	106	2"

Recommended Pre-Filtration For Ordering Information Assistance, call 1-800-343-4048, 8AM to 5PM Eastern Time

Nitrogen Generator	1st Stage	2nd Stage	Hydrocarbon Filter	4th Stage
NM-14	8002N-1A1-DX	8002N-0A1-BX	--	--
NM-40	8002N-1A1-DX	8002N-0A1-BX	--	--
NM-89	8002N-1A1-DX	8002N-0A1-BX	159.003578	8002N-0A1-BX
NM-214	8004N-1A1-DX	8004N-0A1-BX	159.003578	8004N-0A1-BX
NM-321	8004N-1A1-DX	8004N-0A1-BX	159.003578	8004N-0A1-BX
NM-519	8004N-1A1-DX	8004N-0A1-BX	159.003578	8004N-0A1-BX
NM-962	8004N-1A1-DX	8004N-0A1-BX	B04-0482	8004N-0A1-BX
NM-1250	8206N-1A1-DX	8206N-0A1-BX	B04-0483	8206N-0A1-BX
NM-1667	8208N-1A1-DX	8208N-0A1-BX	B04-0483	8208N-0A1-BX
NM-6992	8D16N-0A1-DX	8D16N-0A1-BX	AT-10-AC	8D16N-0A1-BX



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