

# NFM-100 Nitrogen Gas Separation Hollow Fibre Membrane Module

The NFM-100 is a compact, high-capacity hollow fibre membrane module that delivers a reliable, instant, and continuous supply of nitrogen on demand. Built upon Parker's highest quality hollow fibre membrane technology, it efficiently separates nitrogen from a clean compressed air source to achieve purities from 99.5% to 95.0%.

Compared to the next best-selling alternative, the NFM-100 provides significantly more gas from a single module, minimizing footprint and the number of modules required to meet system design. With a wide operating range of 5 to 65°C and 4 to 13 barg, the NFM-100 delivers versatile performance across demanding environments.

The NFM-100 is well suited to fixed and mobile installations in industries including food and beverage, oil and gas, marine, mining, and transportation offering dependable on-demand nitrogen generation that supports uptime, simplifies logistics, and streamlines OEM and skid integrations.

Key features and benefits include:

- **Lowest Total Cost of Integration**

Higher capacities result in reduced number of membrane modules meaning less pipework, fittings and cost.

- **Energy Savings**

Parker's hollow fibre membrane is the most permeable membrane available allowing operation at lower pressures which requires less energy meaning there is no need for high pressure compressors.

- **Long Service Life**

Parker's hollow fibre membranes have a long life expectation of more than 10 years.

- **Reliable Performance**

Due to Parker's innovative ageing process, the membrane modules performance won't decrease over time.

- **Extended Warranty\***

A free 12 month extended warranty, offering assurance that our products meet the highest quality and reliability.

\*Extended warranty subject to terms and conditions.

Please contact your local authorised Parker distributor for more information.



### Minimum Outlet Flow Rate

| Inlet Pressure |        | Purity vs Minimum Nitrogen Outlet Flow Rate |      |       |      |       |      |       |      |       |       |       |       |
|----------------|--------|---------------------------------------------|------|-------|------|-------|------|-------|------|-------|-------|-------|-------|
|                |        | 99.5%                                       |      | 99.0% |      | 98.0% |      | 97.0% |      | 96.0% |       | 95.0% |       |
| bar(g)         | psi(g) | m³/hr                                       | cfm  | m³/hr | cfm  | m³/hr | cfm  | m³/hr | cfm  | m³/hr | cfm   | m³/hr | cfm   |
| 5.0            | 72.5   | 14.1                                        | 8.3  | 21.4  | 12.6 | 32.6  | 19.2 | 43.2  | 25.4 | 53.7  | 31.6  | 64.8  | 38.1  |
| 6.0            | 87.0   | 18.2                                        | 10.7 | 27.4  | 16.1 | 41.8  | 24.6 | 55.2  | 32.5 | 68.6  | 40.4  | 83.1  | 48.9  |
| 7.0            | 101.5  | 22.3                                        | 13.1 | 33.6  | 19.8 | 51.0  | 30.0 | 67.3  | 39.6 | 83.9  | 49.4  | 101.7 | 59.8  |
| 8.0            | 116.0  | 26.2                                        | 15.4 | 39.6  | 23.3 | 60.2  | 35.4 | 79.5  | 46.8 | 99.4  | 58.5  | 120.2 | 70.7  |
| 9.0            | 130.5  | 30.2                                        | 17.8 | 45.6  | 26.8 | 69.3  | 40.8 | 91.8  | 54.0 | 114.5 | 67.4  | 138.6 | 81.6  |
| 10.0           | 145.0  | 34.0                                        | 20.0 | 51.4  | 30.2 | 78.2  | 46.0 | 103.8 | 61.1 | 129.5 | 76.2  | 156.2 | 91.9  |
| 11.0           | 159.5  | 38.2                                        | 22.5 | 57.6  | 33.9 | 87.5  | 51.5 | 115.9 | 68.2 | 144.6 | 85.1  | 174.6 | 102.8 |
| 12.0           | 174.0  | 42.2                                        | 24.8 | 63.6  | 37.4 | 96.6  | 56.9 | 128.0 | 75.3 | 159.7 | 94.0  | 192.8 | 113.5 |
| 13.0           | 188.5  | 46.2                                        | 27.2 | 69.6  | 41.0 | 105.7 | 62.2 | 140.1 | 82.4 | 174.8 | 102.9 | 211.1 | 124.2 |

m<sup>3</sup> reference to standard conditions, 20°C, 1013mbar(a) and 0% relative water vapour pressure  
For performance figures at other purities and/or pressures, please contact Parker.

## Temperature Correction Factors

| Temperature |       | Minimum Outlet Flow Rate Temperature Correction Factors |       |       |       |       |       |
|-------------|-------|---------------------------------------------------------|-------|-------|-------|-------|-------|
| °C          | °F    | 99.5%                                                   | 99.0% | 98.0% | 97.0% | 96.0% | 95.0% |
| 5.0         | 41.0  | 0.95                                                    | 0.90  | 0.90  | 0.90  | 0.90  | 0.90  |
| 10.0        | 50.0  | 0.97                                                    | 0.95  | 0.95  | 0.95  | 0.95  | 0.95  |
| 20.0        | 68.0  | 1.00                                                    | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| 30.0        | 86.0  | 1.00                                                    | 1.03  | 1.05  | 1.05  | 1.05  | 1.05  |
| 40.0        | 104.0 | 1.00                                                    | 1.05  | 1.10  | 1.10  | 1.10  | 1.10  |
| 50.0        | 122.0 | 1.00                                                    | 1.05  | 1.10  | 1.10  | 1.15  | 1.10  |
| 60.0        | 140.0 | 1.10                                                    | 1.15  | 1.20  | 1.20  | 1.25  | 1.20  |

## Operating Parameters

|                                      |                              |              |
|--------------------------------------|------------------------------|--------------|
| <b>Minimum Inlet Air Quality</b>     | ISO 8573-1: 2010 Class 2.4.1 |              |
| <b>Minimum Operating Pressure</b>    | 5.0 bar(g)                   | 72.5 psi(g)  |
| <b>Maximum Operating Pressure</b>    | 13.0 bar(g)                  | 188.5 psi(g) |
| <b>Minimum Operating Temperature</b> | 5.0°C                        | 41.0°F       |
| <b>Maximum Operating Temperature</b> | 65.0°C                       | 149.0°F      |
| <b>Maximum Pressure Drop</b>         | 0.2 bar(g)                   | 2.9 psi(g)   |

## Weight & Dimensions

| Material | 316L Stainless Steel |          |
|----------|----------------------|----------|
| Length   | 1791.1 mm            | 70.5"    |
| Diameter | 188.0 mm             | 7.4"     |
| Weight   | 45.0 kg              | 99.2 lbs |



## Connections

|                                    |                        |
|------------------------------------|------------------------|
| <b>Compressed Air Inlet</b>        | 1½" NPT / 2" Victaulic |
| <b>Nitrogen Outlet (Retentate)</b> | 1½" NPT / 2" Victaulic |
| <b>Exhaust (Permeate)</b>          | 3" Victaulic           |

## Part Number Configurator

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