WHY CHOOSE A NUVAIR NITROX MEMBRANE SYSTEM?

Since 1997, Nuvair has manufactured thousands of nitrox systems for customers around the world, and each month, new and returning customers purchase Nuvair-manufactured nitrox membrane systems, low-pressure nitrox commercial surface supply systems, and high-pressure turnkey nitrox systems. Our competition has been making claims that we would like to address.

7060-7063ME-EK76-WC Nitrox Membrane System

What the Competition Says —— Some of our competitors claim to produce more enriched air nitrox (EAN) per membrane fiber, with less energy consumed, than any other membrane in the world. We don't see it that way. While some membrane systems might be smaller in size than Nuvair membranes, overall performance—not form factor—is the key metric when it comes to enriched air production.

Optimum Operating Temperature —— We know that heating air before it enters the membrane is critical to efficient nitrox generation. Heating inbound membrane air to 110°F ±5°F (43°C ±3°C) optimizes system performance, helps impurities move through the membrane without being trapped in the fibers, provides stability in a wide range of ambient air conditions, and prevents internal membrane moisture condensation—which is a definite membrane killer. The truth is, when cool air (i.e., ambient temperature air or air not warmed) enters the membrane, impurities contaminate the fibers thereby degrading membrane performance and shortening the membrane's service life.

Membrane Service Life —— Our nitrox systems are a proven commodity and have stood the test of time. Many Nuvair customers have 30,000 to 50,000 hours of membrane system runtime. With proper care of compressors and filtration systems, our membrane systems have a life expectancy of 25 years. Competing membrane manufacturers have no such track record in either industrial applications or the diving industry. And history speaks for itself: Nuvair replaces many more competitor's membrane systems than our own.

The Full Range of Nitrox —— Read the fine print of other membrane manufacturers. Some may do fine at producing EANx32 (32% nitrox), but they can't keep up when it comes to producing nitrox over 32%. While competitors claim better energy efficiency, Nuvair membrane systems are +33% more efficient at producing nitrox than other brands. Moving air costs money, but the amount of money spent on heating membrane air is insignificant compared to the cost of bigger compressors required to drive our competitors' membrane systems.

Low Pressure Membrane Feed Requirements —— When comparing nitrox membrane systems, a simple calculation is comparing feed air consumption (the input feed air flow rate into the membrane) to enriched air flow rate (the output nitrox flow rate). The Nuvair ratio of input to output for EANx32 is 1.5/1, compared to a competitor's ratio of 1.75/1, and as nitrox percentages increase, the competition falls further and further behind. For example, when a maximum output of EANx40 (40% nitrox; the maximum allowed for non-technical diving) is required, the Nuvair's EANx40 input/output ratio is 2.59/1, while our competition's is a staggering 4.53/1! That's 75% more air input required to generate an equivalent amount of 40% nitrox!

Let's Talk Nitrox! —— For nearly 30 years, Nuvair has been producing high quality nitrox generation systems for industries worldwide. If you would like to talk about your nitrox production requirements or the differences between Nuvair and our competitors' nitrox membrane systems, drop us a line at info@nuvair.com or contact our sales team at +1.805.815.4044.

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