

# PP-322 PRISM PRESSURE



The importance of nitrogen gas in food packaging is immeasurable. Replacing all the air in the package with nitrogen will maintain crispness when packaging foods that need to stay crisp, such as chips or crackers. When packaging certain fruits or vegetables, nitrogen-based modified-atmosphere packaging is implemented, resulting in lowered levels of oxygen and increased levels of carbon dioxide. Our nitrogen generators are designed specifically for the packaging and storage process, employing the PRISM Membrane System, which uses the unlimited supply of raw air to produce specific purities of nitrogen. Cleaner supply means a cleaner product, and our generators are a testament to that. Our generators are the only machines in the industry that have oil-less scroll compressors built into the machine, delivering extremely pure air to the filters more efficiently and at a lower cost than conventional compressors, all in one convenient and space-saving package. The result is ultra-high purity nitrogen from a machine that is cleaner, quieter, more reliable, more efficient, uses up less floor space and requires far less maintenance than comparable models. Not a bad package, wouldn't you say?

## HOW IT WORKS

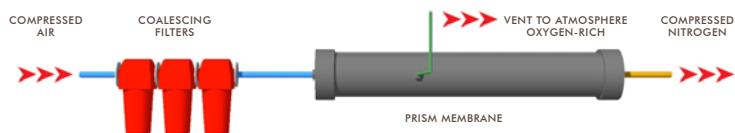
The air that we breathe contains 78% nitrogen, 21% oxygen and 1% other gases. The PRISM Membrane System uses this unlimited supply of raw material to produce specific purities of nitrogen.

Selective permeation is the general principle behind the membrane system. Each gas has a characteristic permeation rate that is a function of its ability to dissolve and diffuse through a membrane. This characteristic allows "fast gases" such as oxygen to be separated from "slow gases" such as nitrogen.

This low purity Nitrogen gas is just enough to pressurize the rooms and not allow oxygen infiltration to be a factor. The  $O_2$  levels can be maintained lower than ever before in somewhat leaky rooms.

The feature that sets these machines apart is their use of built-in oil-less compressors, delivering far cleaner air to the PRISM membrane nitrogen system, yielding an exceedingly pure  $N_2$  product while still using only 2-3 kW. Not only does this mean reduced operation costs and less maintenance, but fewer components lead to both increased reliability and a more affordable price.

Contact us today for further information and pricing.



THOUSANDS OF MEMBRANE FIBERS ARE CONTAINED IN THE COMPACT PRISM ALPHA MEMBRANE SEPARATOR.



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