MEMBRANE AIR SEPARATION TECHNOLOGY
WHAT IS MEMBRANE AIR SEPARATION TECHNOLOGY?

- A Technology Used to Generate Non-cryogenic (Gaseous) Nitrogen on-site
- A Polymeric Hollow Fiber Selectively Permeates Oxygen, Water Vapor, and Other Impurities Out of Its Sides while Allowing Nitrogen to Flow through Its Center and Emerge as Product
- Millions of Hollow Fibers Are Bundled and Encased to Form a High Performance Module
- One or More Modules Are Skid-Mounted and Operated in Parallel to Supply up to 100,000 SCFH of Continuous Nitrogen Product
THE MEMBRANE PHENOMENOM

MODULE OPERATION
Oxygen and Water Vapor Are "Fast" Gases Which Quickly Permeate the Membrane, Allowing Nitrogen to Flow through the Fiber Bores as the Product Stream
MEMBRANE AIR SEPARATION MODULE

- End Plate
- Epoxy Tube Sheet
- Support Core
- Hollow Fibers
- O Rings
- Feed Air
- Enriched Nitrogen Product Gas
- Epoxy Tube Sheet
- Oxygen-Enriched Air
MEMBRANE PROCESS FOR AIR SEPARATION

Compression and Air Drying

Filtration

Gas Separation

Product Delivery

Defined by Customer's Scope

Compressor and Dryer

Air Inlet

Air Receiver

Filters

Condensate

Membrane

Membrane

O2, CO2, H2O

O2, CO2, H2O

Vent Gases