

# ON-SITE NITROGEN GENERATOR

## Mobile Nitrogen Generating Plant (MNGP)

- The MNGP generates large volumes of high-purity nitrogen on the flightline at constant high pressure. The MNGP has been designed to provide high-purity nitrogen specifically for the F-35 aircraft.



| Characteristics       | Value / Description                          |
|-----------------------|--|
| N <sub>2</sub> Purity | 99.5 %                                       |
| Flow @ Pressure       | 10 scfm @ 5450 psi                           |
| Weight                | Approximately 3672 lb (empty) 3912 lb (full) |
| Dimensions            | 83" Long x 73" Wide x 63" Tall               |
| Powered by            | Diesel fuel, JP-4, JP-5, JP-8, or Jet A      |
| On board storage      | 850 sf on board nitrogen storage at 5450 psi |

### Proven Reliability

The MNGP completed extensive and rigorous testing to validate its suitability for military usage in all locations around the world under all environmental conditions.

These carts are far superior to existing, outdated, and expensive methods of supplying nitrogen as they eliminate the logistical tail associated with high pressure gas cylinders or liquid conversion systems. No more shipping 160 pound nitrogen cylinders that only contain 18 pounds of nitrogen. No more nitrogen logistical support ... period!

### System Design

PCI's MNGP is self-contained and integrated on a four-wheel, towable trailer. All components are mounted inside a weatherproof fiberglass enclosure.

1. Powered by a reliable diesel engine, the MNGP will run on diesel fuel, JP-4, JP-5, JP-8, or Jet A. Any fuel used in the aircraft will be compatible.
2. On-board nitrogen purity analyzer continuously and automatically maintains the nitrogen purity.
3. Nitrogen supply pressure is automatically regulated. System turns on at the specified minimum pressure and off at maximum pressure.
4. Operator requirements are reduced to starting and stopping the unit. Safety shutdowns are automatically activated.
5. Doors are located at all maintenance check points. The lightweight fiberglass cover tilts up for increased access, and is removable by two persons (no tools required) for total access.
6. The MNGP has an optional second battery for operation down to -40 degrees Fahrenheit.
7. The MNGP can be configured with optional hoisting provisions.

# MNGP (continued)

## System Advantages

1. Nitrogen, when you need it, where you need it. Obsolete cylinder systems are frequently empty or too low in pressure to be usable when you need them the most. MNGP is always ready with nitrogen at high pressure.
2. Eliminates cross-contamination problems. Serious aircraft grounding damage is often caused by the failure of critical seals. The root cause of these failures has been traced to contamination, rust and dirt introduced from the nitrogen cylinders. The sealed system on the MNGP eliminates the primary cause of this contamination.
3. Totally eliminates the logistical tail. Once deployed to the forward location, the MNGP requires no additional logistical support beyond the available aircraft jet fuel.

## Dimensions

