



MNGS 4.0

Mobile Nitrogen Generation System

The Fourth-Generation Standard
in Mobile Nitrogen Production



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The **MNGS 4.0** from **Specialty Gas Canada** represents the newest evolution of our industry-leading Mobile Nitrogen Generation Systems. Built in Canada and engineered for reliability in both remote and urban environments, this fourth-generation platform delivers superior performance, efficiency, and regulatory compliance.



Designed with a **fully enclosed or skid-mounted** configuration, the MNGS 4.0 integrates advanced mechanical, electrical, and air-treatment technologies into a compact, service-friendly package. Whether operating in extreme climates or demanding industrial settings, the MNGS 4.0 ensures continuous, high-purity nitrogen – whenever and wherever it's needed.

Dual Power Flexibility

Every system is equipped with **dual power options**, allowing seamless operation through an onboard **final tier 4 diesel generator or any other legally compliant generator**, or via external **hydro power**.

Users may pre-select supply voltage options, including:

- **575 V / 3-Phase / 60 Hz**
- **480 V / 3-Phase / 60 Hz**

This flexibility ensures easy integration into diverse job sites, facilities, and mobile deployments.



Best-in-Class Compressed Air System

At the heart of the MNGS 4.0 is an **isentropically efficient compressed air system** engineered for low specific power and long-term savings. The air system is:

- **Rated for 160 PSI**, ensuring stable inlet conditions
- Capable of providing **compressed air at 160 PSI** for Nitrogen Generation, as well as to meet additional compressed air needs for **other pneumatic operations**.
- Supported by a **four-stage filtration train** and **high-performance air dryer**, guaranteeing clean, dry inlet air for precision nitrogen generation

This optimized air preparation architecture ensures that high-quality nitrogen is produced consistently – day after day.



Intelligent Nitrogen Generation

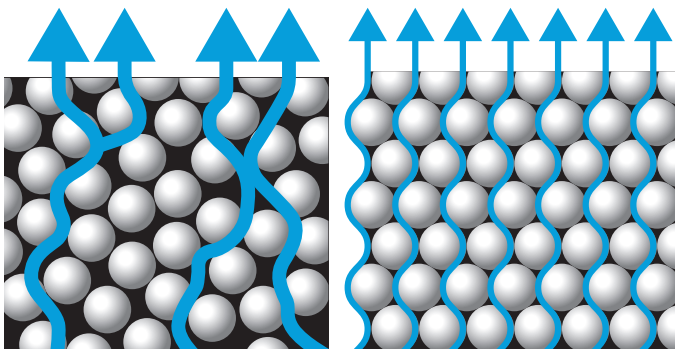
The MNGS 4.0 integrates an advanced **HMI (Touch Screen)** that provides real-time monitoring, diagnostics, and control. The system’s interface eliminates guesswork, and displays:

- Continuous **Nitrogen purity (%)**
- Oxygen level via **inbuilt oxygen sensor**
- System pressures, flows, and performance metrics
- Alarm notifications and maintenance indicators



Advanced CMS Technology

Using **Snowstorm-Filled Carbon Molecular Sieve (CMS)**, the generator maximizes adsorption efficiency, stability, and nitrogen purity.



Conventional Filling

“Snow Storm” Filling

High-Pressure Nitrogen Delivery – Up to 5,000 PSI

For applications requiring high delivery pressures, the MNGS 4.0 includes a **5,000 PSI high-pressure booster system**. This system is paired with:

- A certified cylinder pack
- High-pressure harness assembly and Quick Disconnects
- Adjustable pressure regulator (**0–5,000 PSI**)
- Optional backpack system for field mobility

This makes the MNGS 4.0 suitable for aviation, industrial maintenance, pipeline services, pressure testing, nitrogen blanketing, laser cutting support, and remote deployment tasks.

System Performance Specifications

Parameter	Specification
Nitrogen Outlet Flow Rate	≥ 15 SCFM
Nitrogen Purity	≥ 99%
Dew Point	-50°C to -60°C (Ultra-dry)
Nitrogen Outlet Pressure	Up to 5,000 PSI
Nitrogen Class	Class 1 Nitrogen
Compressed Air Outlet Flow Rate	15 SCFM (Minimum)
Compressed Air Outlet Pressure	Up to 150 PSI



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Reliable and Built to Canadian Regulatory Standards

Specialty Gas Canada takes pride in delivering equipment that is **fully compliant, safe, and engineered for long-term use**. Every MNGS 4.0 package is designed and manufactured in Canada and meets or exceeds:

- **Transport Canada (TC)** requirements
- **CSA** electrical standards
- **TSSA** safety compliance
- **CRN** (Canadian Registration Number) requirements for pressure components
- **TAA** (Technical Airworthiness Authority) requirements for applicable parts

About Specialty Gas Canada

Specialty Gas Canada is a **100% Canadian-owned company** committed to delivering high-quality, innovative gas generation solutions. With a strong focus on engineering excellence, safety, and regulatory compliance, we support industries across Canada with dependable nitrogen, oxygen, and compressed air systems.

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Turnkey Solution Provider of
O₂ and N₂ Generators

