



NOVAIR Unveils Next-Gen ION Oxygen Generator at Paris Air Show 2025

Revolutionizing Oxygen Supply for Aerospace and MRO

Roissy-en-France, FRANCE — June 2025 — NOVAIR, a global leader in oxygen and nitrogen generation solutions, proudly announces the official launch of its groundbreaking ION oxygen generator at the prestigious Paris Air Show 2025, held at Le Bourget.

ION is the result of years of advanced R&D by AMERICAN OXYGEN, a U.S.-based startup renowned for its ceramic membrane technology. NOVAIR and American Oxygen entered an exclusive partnership in 2024 to scale this innovation globally.

Delivering ultra-pure oxygen (>99.99%) with virtually no maintenance, the ION generator represents the most significant breakthrough in oxygen generation since the invention of cryogenic distillation over a century ago.

Technology Born from NASA Collaboration

The proprietary technology powering ION was originally developed by American Oxygen in collaboration with NASA. The goal: to make the International Space Station self-sufficient in producing oxygen for spacesuits, thereby eliminating the need to transport oxygen from Earth.

ION uses advanced ceramic membranes that ionize oxygen atoms from ambient air, transport them through the membrane wall, and recombine them into oxygen molecules on the other side. This electrochemical process has no consumables and no moving parts—except for a small air circulation fan. The oxygen is generated under pressure, without the need for a compressor—an unprecedented technological feat.

Ionic oxygen generation is poised to disrupt the air gas market, offering an autonomous, energy-efficient, ultra-reliable and cost-effective alternative to traditional oxygen delivery via liquid or bottled gas.

ION for Aerospace Applications

The ION generator is ideally suited for MRO providers, aircraft operators and defense forces, to replace the oxygen cylinders that are used to refill oxygen onboard aircrafts, with key benefits that include:

- Autonomous on-site aviation-grade oxygen supply
- No cylinder deliveries, no handling, no logistics – ideal for hangars, depots, and field operations
- Compact design for easy integration into existing infrastructure
- Solid-state technology with no moving parts and minimal maintenance



NOVAIR Nitrogen Generators: Proven Performance in Aerospace

Alongside ION, NOVAIR will showcase its field-proven range of nitrogen generators, trusted worldwide by civil and military aviation professionals for critical applications including:

- Tire inflation
- Fuel tank inerting
- Hydraulic system maintenance
- Cleanroom purging & component cleaning

Key features:

- Ultra-high nitrogen purity up to 99.999%
- PSA and membrane technologies tailored to diverse operational needs
- Skid-mounted or containerized units for both fixed and mobile deployment
- 24/7 operation in demanding environments

Meet Us at Paris Air Show 2025

NOVAIR and American Oxygen invite aerospace professionals, MRO leaders, defense contractors, and the media to experience the **ION generator live** at **Booth H313 – Hall 1**

"We're thrilled to present our ION technology—born from collaboration with American Oxygen and NASA—to the aerospace community at Le Bourget. In an industry where mission-critical systems demand maximum autonomy and uncompromising reliability, ION represents a paradigm shift. By enabling on-site generation of ultra-pure oxygen, it eliminates dependence on traditional supply chains and empowers operators, MRO providers, and defense forces with a compact, robust, and maintenance-free solution" declares Bernard Zenou, Chairman of NOVAIR

"This technology is the product of many years of R&D and collaboration with NASA and was initially developed to produce oxygen on the International Space Station. It was the Covid-19 pandemic that accelerated the design of a first demonstrator to produce medical oxygen, this time on Earth. Today, the technology is mature and ready for industrialization. Together with Novair, the world's leading supplier of oxygen generators, we are very proud to bring to market this new oxygen production technology, which will provide access to high-purity oxygen for all industries and hospitals, everywhere in the world" continues Dale Taylor, President of American Oxygen.

**About Novair :**

Founded in 1977 by Bernard Zenou, Groupe NOVAIR is an independent, family-owned group, a pioneer in the design and manufacture of on-site medical and industrial gas production solutions (oxygen, nitrogen) for the healthcare and industrial sectors. The world's leading manufacturer, with a presence in 150 countries, the group generates sales over €50 million, 80% of which are generated internationally. The company employs over 200 people worldwide. The Nov Santé fund from Eurazeo investment firm has acquired in 2021 a minority stake in the NOVAIR group.

About American Oxygen:

Founded in 2018 in Salt Lake City by a team of engineers and researchers with decades of experience in ceramics, American Oxygen is an American startup dedicated to developing ceramic technologies for ionization gas separation. American Oxygen has been a NASA contractor since its inception.