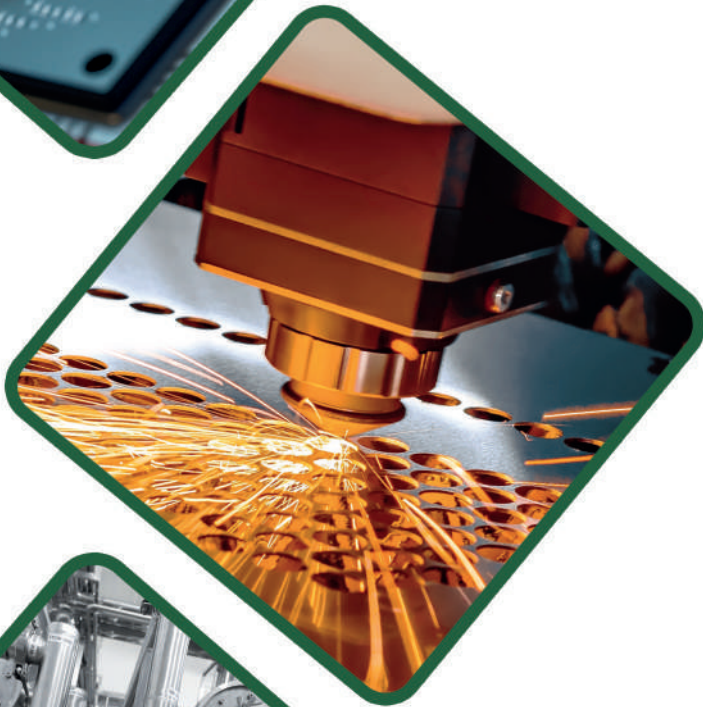
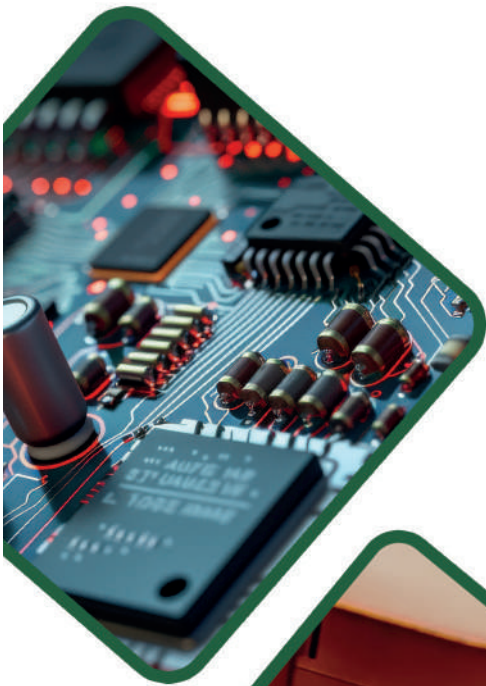


Cost-Effective, Efficient,
Reliable, Sustainable
Nitrogen Generation Solutions



NITROGEN
N₂

**NITROGEN GENERATOR
CATALOG**



01

OXYGEN ANALYSIS (ZIRCONIUM OXIDE SENSOR)

The zirconium oxide sensor, provided as standard equipment, stands out for its high durability and unwavering reliability. Its thermal resistance and rapid response capability ensure the continuous and safe monitoring of purity levels.

02

MICRO, ACTIVATED CARBON, AND DUST FILTERS

Dual-direction inlet and outlet filters deliver superior compressed air purity while ensuring full protection of the existing molecular sieve and providing the user with high-quality nitrogen gas; the system is notable for its long-lasting performance.

03

PLATFORM AND CARRIER

All PSA generators are developed in compliance with DGRL standards and designed to withstand 2.2 million pressure cycles, maintaining their structural integrity during long-term use. Our nitrogen generators utilize high-quality metal plates featuring a special design that enhances flow efficiency.

04

HIGH-QUALITY CMS

Produced using biodegradable raw materials, Carbon Molecular Sieve (CMS) stands out for its superior adsorption performance alongside its environmentally friendly nature. It delivers high efficiency by offering a long service life and low air consumption. It is a durable, sustainable, and performance-oriented solution.

05

HIGH-QUALITY PNEUMATIC VALVES AND VALVE BLOCK

The compact design of the valve block minimizes the risk of leakage while offering convenient access for servicing. The optimized layout of the high-standard pneumatic valves ensures rapid response times and high control precision. It offers a long service life and maintenance advantages.

06

SENSOR AND CONTROL TECHNOLOGY

A pressure sensor and flow control system positioned at the nitrogen generator's outlet continuously monitor efficiency and nitrogen purity. The integrated operation of the sensor and control unit optimizes energy consumption while ensuring maximum operational safety and consistent nitrogen gas production.

07

INLET AND OUTLET PRESSURE REGULATORS

Pressure regulation systems integrated into the inlet and outlet lines ensure the steady and controlled flow of supply and discharge gases at desired pressure levels. This prevents sudden pressure fluctuations, enhances flow stability, and supports the safe and continuous operation of the process.

08

TOUCHSCREEN CONTROL

The high-standard control unit offers the user a superior level of ease of use. All processes are visualized clearly and intuitively. A wide range of interface options enables transparent monitoring while ensuring rapid, seamless integration into existing system infrastructures.

NITROGEN GENERATOR

NITROGEN

N_2

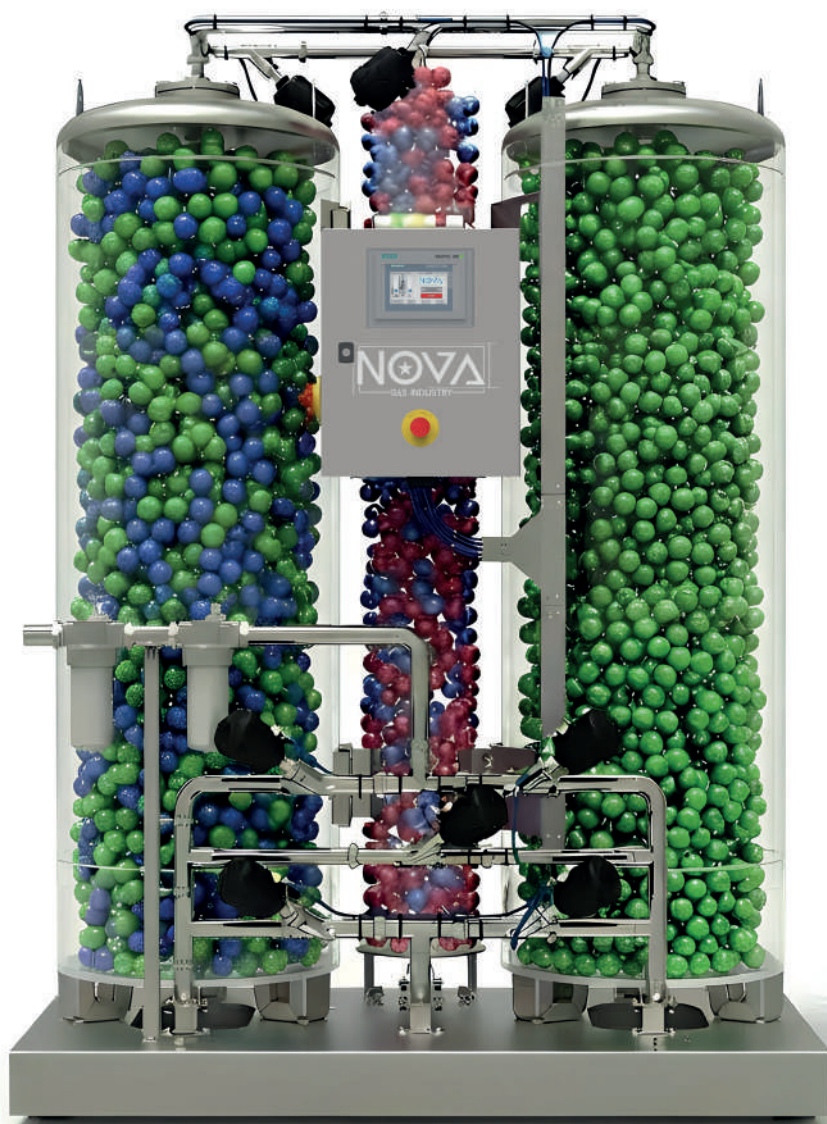


NITROGEN GENERATOR TECHNICAL SPECIFICATIONS

MODEL	CAPACITY (m ³ /Hour)								
PURITY	95	97	98	99	99.5	99.9	99.99	99.995	99.999
QUALITY					2,5	3	4	4,5	5
Residual O ² (PPM)	10000				5000	1000	100	50	10
NGS-N 115	5,7	4,2	4,1	3,2	2,6	1,6	0,9	0,7	0,4
NGS-N 120	10,8	8,7	7,9	5,8	5,1	3,2	1,3	1,1	0,9
NGS-N 140	16,5	13,4	12	9	7,7	4,8	2,4	1,8	1,3
NGS-N 150	20,8	17,1	15,8	12,6	9,5	6,3	3,2	2,5	1,8
NGS-N 160	31,2	25,6	23,7	18,9	14,2	9,5	4,8	3,6	2,4
NGS-N 1100	49,2	40,1	35,6	28,4	22,1	12,6	6,3	4,8	3,2
NGS-N 1150	84	59,9	53,8	46,6	37,8	23,2	11,7	8,8	5,8
NGS-N 1220	105	84	76	64	52,4	37,6	23,6	16,8	10,7
NGS-N 1270	141	117	98	80	68	48,2	27,9	21	14,2
NGS-N 1350	211	174	146	115	100	71,9	41,8	31,5	21,3
NGS-N 1500	260	215	188	143	120	86	50,5	38,5	26,5
NGS-N 1750	372	308	270	206	170	128	74,1	56	38
NGS-N 2750	744	616	540	412	340	256	148,2	112	76
NGS-N 11000	440	366	320	240	200	151,5	88	66,5	45
NGS-N 21000	880	732	640	480	400	303	176	133	90
NGS-N 11500	630	522	457	350	285	216,8	125,7	94,8	64
NGS-N 12000	910	756	661	505	420	312,9	181	137	93
NGS-N 12500	1142	945	826	630	540	391,6	226,7	171,3	116
NGS-N 13000	1370	1134	992	756	650	470,2	272,5	206,2	140
NGS-N 3000	1590	1320	1155	875	750	560	325	245	166
NGS-N 4000	1825	1510	1320	1000	855	625	360	275	185
NGS-N 5000	2300	1910	1655	1250	1000	750	450	340	230
NGS-N 6000	2750	2270	1990	1500	1250	950	550	415	280



Right Capacity, Right Technology
Perfect Nitrogen Solutions



70%
Savings

NITROGEN

N₂

PURITY FROM
95% TO 99.999%

PSA TECHNOLOGY

The operational process is based on the fundamental principle of adsorption. To obtain nitrogen, compressed air is alternately passed through two tanks filled with Carbon Molecular Sieve (CMS). Oxygen molecules from the atmospheric air, which is fed into the system under pressure, are adsorbed by the CMS surface. Meanwhile, the liberated nitrogen molecules pass through the CMS structure unaffected and are transferred to the nitrogen storage tank further down the line. The gas is stored in this vessel to be used as needed.

When the CMS material in the first tank is fully saturated with oxygen molecules, the production cycle automatically switches to the second tank. While the oxygen adsorption process continues under pressure in the second tank, the CMS in the first tank discharges the accumulated oxygen (regeneration), making it ready for reuse. This alternating operational mechanism enables a continuous and stable flow of nitrogen gas.

END YOUR DEPENDENCE ON NITROGEN GAS GENERATE YOUR OWN NITROGEN



NOVAPURE PURITY TECHNOLOGY

During the initial startup of the system or when the slightest deviation in gas purity is observed, the storage tank is purged with nitrogen to reach the target purity value. The NovaPure system activates the outlet valve and delivers the nitrogen gas for use only when the desired quality standard is achieved. Gas that falls below the required specifications is vented out of the process, thereby ensuring system safety. It guarantees continuous and stable product quality, particularly for sectors requiring high precision, such as laser cutting, food packaging, chemistry, and pharmaceuticals.

Superior Quality at an Accessible Cost

NovaPure technology is enhanced by two critical components: It features a precision sensor that monitors the pressure in the inlet line and a flow sensor that continuously tracks the gas flow at the outlet.



SMART ENERGY AND PERFORMANCE MANAGEMENT

It monitors nitrogen demand and purity in real-time using high-precision zirconium oxide sensors. An AI-powered control unit analyzes consumption data to predict future needs and dynamically adjusts system performance.

By optimizing cycle times during periods of low demand, this technology prevents unnecessary valve switching, minimizes air loss, and reduces compressor load. Designed specifically for facilities with fluctuating consumption profiles, the system ensures maximum savings on operational costs.

DEWPOINT CONTROL

It incorporates temperature and pressure dew point sensors that continuously monitor the temperature and humidity of the intake air. It is an energy management model that perfectly meets specific needs, is environmentally friendly, and minimizes operational costs.



KEEP YOUR PRODUCTION RUNNING WITH NOVA REDUNDANT SUPPLY SYSTEM

The Nova Gas “Base Load Switching” system manages the dual-feed unit using an intelligent hierarchy. Switching between systems occurs fully automatically based on pressure and flow values. This technology extends operational lifespan by ensuring balanced wear across the systems while flexibly optimizing capacity according to real-time demand. Thanks to its redundant operating structure, your production line continues running without interruption, even during maintenance. It is designed to provide a safe, stable, and sustainable nitrogen supply.



NOVA REDUNDANT VALVE BLOCK: UNINTERRUPTED OPERATION, EASY MAINTENANCE

Designed to maximize system continuity, the Redundant Valve Block offers dual-line safety at both the inlet and outlet of the nitrogen generator. Developed based on the fact that the vast majority of failures stem from process valves, this solution allows for an instantaneous switch to the backup pipeline via manual switching. In this way, process valves can be cleaned or maintained without shutting down the system. It provides a cost-effective and highly reliable redundancy solution with its dual parallel system structure.



A Clean Future Sustainable Production

OUR ADVANTAGES AND VALUES

Professional Experience: Since our inception, thousands of successful system installations worldwide.

Engineering Marvel: High-tech systems developed and manufactured to the highest standards.

Reliable and Flexible: Modular technology infrastructure scalable according to changing needs.

Maximum Efficiency: Sustainable growth through low operating costs and high production quality.

We provide our customers with much faster and results-oriented service through our international sales operations and extensive service network. We invite you to discover this exclusive world where we offer on-site gas generation technologies.

You can share your current gas consumption data with us so we can determine the system capacity that best meets your needs.



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