



Pneutech



PN₂ Series

Nitrogen Generators

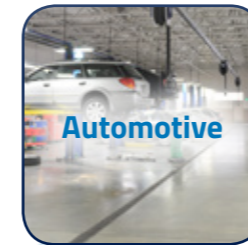


ECO-FRIENDLY

Efficiency Under Pressure

Industries Served

PN₂ Series



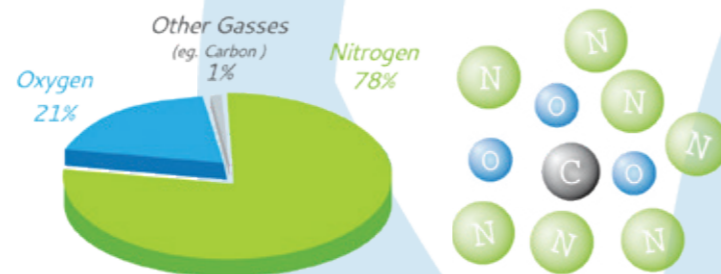
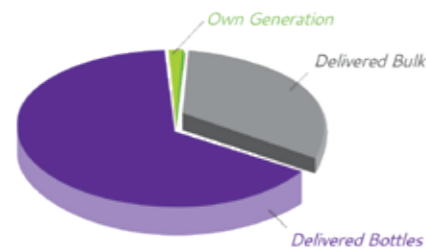
Features & Benefits

There are approximately 400 trillion tonnes of Nitrogen gas surrounding us.

The cost in generating this Nitrogen gas is as low as \$0.10/m³, up to 90% less than having bottled or bulk liquid nitrogen delivered.



Approximate Costs of Nitrogen Gas



Approximately 78% of the dry air that we breathe is made up of Nitrogen gas, while 21% is Oxygen and the remaining 1% is a mixture of Argon, Carbon and even toxic gases.

Nitrogen is an inert, odourless and colourless gas that is extremely useful for slowing or preventing oxidation.

Nitrogen gas is commonly used for blanketing – the process of coating surface areas or filling areas to remove unwanted oxygen and other gases, to prevent liquid from vapourising, to prevent oxidation, to prevent potential explosion, and to reduce moisture content.

Nitrogen is used for "sparging" – the process of flushing packaged foods to prevent aerobic spoilage by reducing the oxygen content to below 1%, and thus preserving the food freshness.

Nitrogen is used as an inert gas in the process of lasercutting metal, to remove unwanted and contaminating gases.

The PneuTech PN₂ System utilises the Twin Tower PSA System, absorbing the Oxygen and unwanted gases from the air intake producing a pure supply of Nitrogen gas.

Unlike the standard twin tower series, the modular series achieves high purities and constant gas flow, but with a very compact and modular generator design.

The unique and patented FlatFlow[®] technology enables a vertical and uniformly distributed gas flow over the entire Carbon Molecular Sieve bed, all within a very confined space.



PN₂ Series

Modular System Total flexibility is achieved with the ability to add additional capacity modules at a later date to meet increasing production demands.

The patented "slave" module is the same design as the main "master" modular generator but without the PLC, controls and power supply.

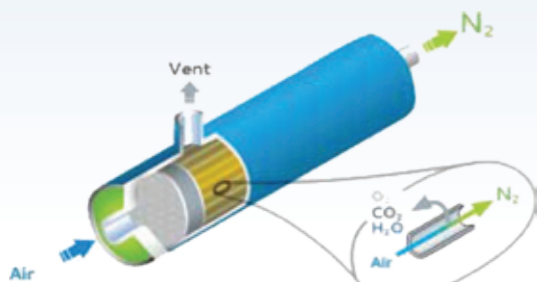
It can be added to increase the original Nitrogen gas capacity by up to three times, to a total of 24 units.



Separation Process

To enable this valuable gas to be utilised, it first needs to be separated out from the atmosphere, and then refined to acceptable purity levels, dependent on the application.

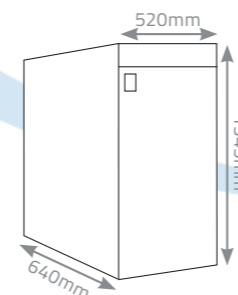
The PneuTech PSA (Pressure Swing Adsorption) Nitrogen generators use carbon molecular sieves to separate and process Nitrogen gas to purity of 95% to 99.999%.



Compact Design

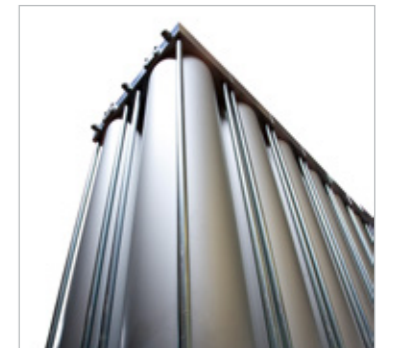
The PN₂ fits through a standard doorway and into the tightest spaces.

It also allows for containerisation.



Aluminium & Stainless Steel

Ensures corrosion-free operation to maintain purity levels, while guaranteeing long-term performance.



Italian Quality

Decades of experience, innovation and design has meant that the PneuTech branded European PN₂ series generators are world-leading in efficiency, reliability and longevity.

With the highest air to N₂ conversion and lowest maintenance factor, PN₂ generators provide the best performance.



Unlimited Benefits

Touch Screen PLC Control

A large 200mm touch screen brings full functionality to your fingertips.

Multiple screens enable the monitoring and control of the full generation process including pressure and dew point rate.

The Siemens HMI allows for remote monitoring with modbus/profibus connections.



Huge Cost Savings

A relatively low capital investment, combined with very low operating costs, makes for a short payback period and impressive ongoing production cost savings.

The low cost generation of your own N₂ gas, can replace the use of inferior substitute gases such as Argon and CO₂, as this quality inert gas becomes so attainable.

High Pressure N₂
approx. \$0.30/m³

Low Pressure N₂
approx. \$0.15/m³

Convenience

With fully automated and unattended nitrogen generation, this gas is on hand for use 24/7, 365 days a year. No more running out of gas, no more bottle handling and storage, no more large truck transportation, on tap when you need it.



Safety

With no bottle or bulk requirements, the gas is no longer stored at dangerously high pressure in heavy bottles, or in (-1950°C) liquid form requiring specialised on-site filling. Delivering gas at a similar low pressure (6–7 bar) to your compressed air system, eliminates the need for hazardous storage.



Guaranteed Purity Stability

Real-time purity monitoring and high quality adsorption processes guarantee a stable, and highly reliable nitrogen supply all of the time, eliminating 'batch' variations as with a delivered supply.



Flexibility

With adjustable purity levels and customisation of plant to suit your requirements, the PneuTech Nitrogen Generation system offers total flexibility to your production process.



Customised

For You

PN₂ Series

Plant Process

The PneuTech PSA Nitrogen generators rely on an incoming supply of clean, dry compressed air which needs to first enter a refrigerated or desiccant dryer process.

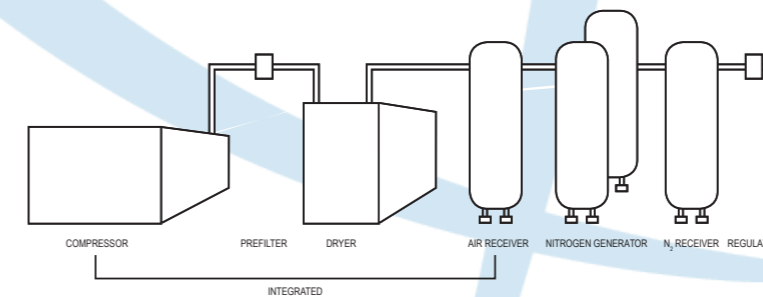
It then passes a coalescing and activated carbon filter bank, en route to the generator.

The Nitrogen gas is then discharged and filtered through a final dust collection filter before entering a receiver for storage.

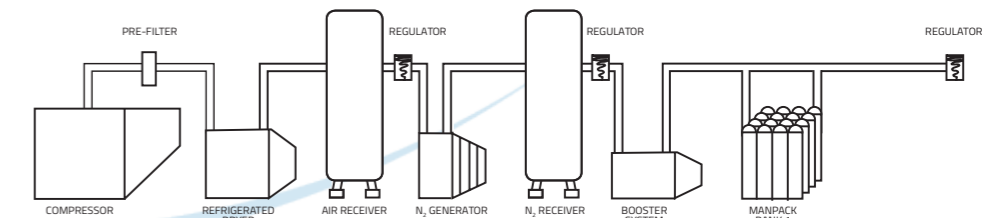
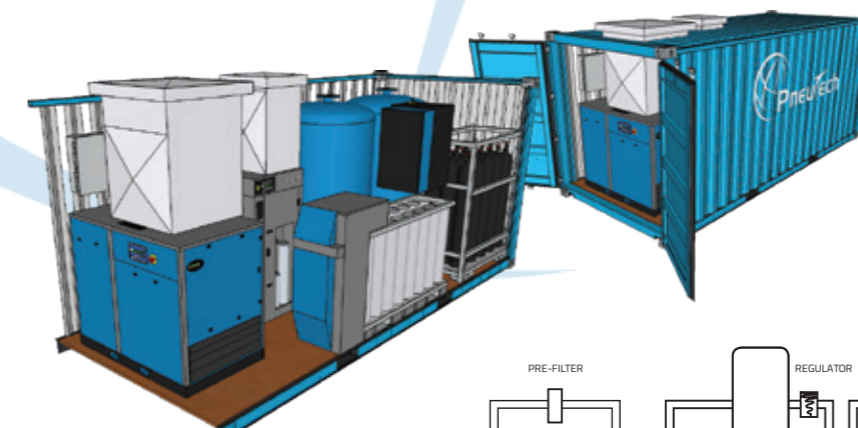
The outgoing Nitrogen gas can be supplied as low pressure (6–8 bar), medium pressure (20–30 bar) or high pressure (200–300 bar) to suit your particular application.

PneuTech N₂ generator systems are customised to suit your needs.

Skid-Mounted Low Pressure N₂ Generation



Containerised High Pressure N₂ Generation



Compressed air input pressure 7 bar – Nitrogen gas output pressure 6 bar.

Specifications

	Gas Purity										LxWxH (mm)	Weight (kg)
	99.999%	99.995%	99.99%	99.95%	99.90%	99.50%	99%	98%	97%			
	Residual O ₂	10 ppm	50ppm	100 ppm	500 ppm	0.1%	0.5%	1%	2%	3%		
PN ₂ -7 1 module	7.5 bar	2.4	3.2	3.8	5.4	6.3	8.9	10.7	13.1	14.1	520x830x1422	256
	10 bar	2.8	3.7	4.6	6.6	7.6	10.7	12.2	15	16.2		
PN ₂ -14 2 modules	7.5 bar	4.6	6.3	7.6	10.7	12.2	17.7	21.3	26.1	28.1	520x955x1422	366
	10 bar	5.5	7.4	8.7	13.2	15.1	21.3	24.3	29.8	32.3		
PN ₂ -21 3 modules	7.5 bar	7.1	9.3	11.3	16	18.8	26.4	31.8	38.9	41.9	520x1183x1422	476
	10 bar	8.2	11.1	13	19.7	22.6	31.8	36.3	44.5	48.2		
PN ₂ -28 4 modules	7.5 bar	9.4	12.4	15	21.2	24.9	35.1	42.1	51.7	55.6	520x1411x1422	586
	10 bar	10.9	14.7	18.3	26.21	30	42.2	48.1	59	63.9		
PN ₂ -37 5 modules	7.5 bar	11.7	15.4	18.6	25.5	31	43.6	52.4	64.3	69.2	520x1639x1422	696
	10 bar	13.6	18.3	22.7	32.6	37.3	52.6	59.9	73.4	79.6		
PN ₂ -42 6 modules	7.5 bar	13.9	18.6	22.5	31.5	37	52.1	62.6	76.8	82.6	520x1867x1422	806
	10 bar	16.2	21.9	27.2	38.9	44.5	62.8	71.5	87.7	95		
PN ₂ -49 7 modules	7.5 bar	16.2	21.4	25.8	35.4	43	60.5	72.7	89.2	96	520x2095x1422	916
	10 bar	18.8	25.4	29.8	45.2	51.7	72.9	83	102	110		
PN ₂ -56 8 modules	7.5 bar	18.4	24.3	29.7	41.6	48.9	68.9	82.7	101	109	520x2323x1422	1026
	10 bar	21.4	28.8	33.9	51.4	58.8	83	94.5	116	126		

Why PneuTech?

Personal Service
Technical Support
Customer Satisfaction
Reliable
Receptive & Adaptable
Ethical
Industry Experienced
Global

You are the number one priority when you partner with PneuTech. Your goals are our goals because your success is our success. Your experience is superior when partnering with PneuTech because of quality products and personal service. You want efficiency, reliability and versatility with the supply of air compressors and all associated equipment – so that's what we strive for.



Pneu-Assure

2 year warranty on all major components*

- Parts & labour warranty for 2 years (excludes regular maintenance)
- 2 year warranty on major components including:
 - PLC
 - PSA Cylinders
- Guaranteed full support from your certified distributor
- Global technical experience leading to a well-rounded point of view on machines and industry standards

*Warranty subject to change based on region and distributor's agreement.

**Warranty is only valid providing a PneuTech approved service technician does the maintenance on the compressor.



PneuTechTM
GROUP

United States
United Kingdom
Australia
New Zealand

PneuTech
www.pneutech.com

Other PneuTech Products...



PDR Refrigerated Dryer

The PDR series non-cycling dryers provide high quality of compressed air and deliver lower dewpoints at a relatively low initial cost. These dryers are compact in footprint and extremely reliable, requiring little maintenance. They come standard with a programmable controller, a digital dewpoint indicator, and an aluminium heat exchanger.



WOS Oil/Water Separators

The WOS 40-1250 cfm series condensate oil water separators have been developed for excellent separation of lubricant and oils from condensate generated from rotary screw, rotary vane, and other types of compressor equipment. These units allow for EPA friendly disposal of your condensation.



RSCR 30-500 Compressors

The RSCR series fixed speed rotary screw air compressors are an exceptionally durable line of higher horsepower air compressors. Routine maintenance is simplified because of this unit's unique direct coupled design and easily removable panels (when applicable). The sound enclosure reduces noise pollution while the high efficiency electric motor brings the highest efficiencies.



PF Inline Filtration

PF inline filtration comes standard with a differential pressure gauge and are protected with an interior and exterior powder coating finish. They hold a replaceable filter that can be quickly and inexpensively maintained. All housings come standard with internal float style drain valves.



RSCRV 30-500 Compressors

The RSCRV series has an energy efficient VSD inverter that gives you unlimited motor starts per hour, consistent discharge pressure, soft motor starts, 30% turndown, and reduced power consumption! This unit also comes standard with an electronic controller, low RPM with its oversized air end design, an oversized air/oil cooler, spin-on filtration, and much more!



PN Nitrogen Generators

The PneuTech Modular Nitrogen Generation system is a cost-saving alternative to buying bottled nitrogen from another company. A relatively low initial investment combined with very low operating costs results in savings up to 60%! Its unique modular design makes for a very compact system, while extra modules can be added at a later date as requirement increases.



RSCRD-V Oil Free Compressors

The RSCRD-V series oil-free air compressor produces high quality Class 0 compressed air, for food and beverage industry requirements. Incorporating a 100% "dry" two-stage compression process, this series guarantees human safe compressed air while providing the full benefits of a VSD drive screw compressor.

Providing
high efficiency
Delivering
exceptional value
of ownership

Mission Statement:

Using our combined industry experience, we provide knowledge, support, and superior products to compressed air distributors across the globe. We are committed to producing positive results through being trustworthy, ethical, and accessible. We are founded in the beliefs that through working together we can continue to transform the industry, while rising to turn challenges into opportunities.



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