

EXPERT AIR TREATMENT AND INDUSTRIAL GAS GENERATION

O₂



N₂

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EXPERT AIR TREATMENT AND INDUSTRIAL GAS SOLUTIONS SINCE 1966

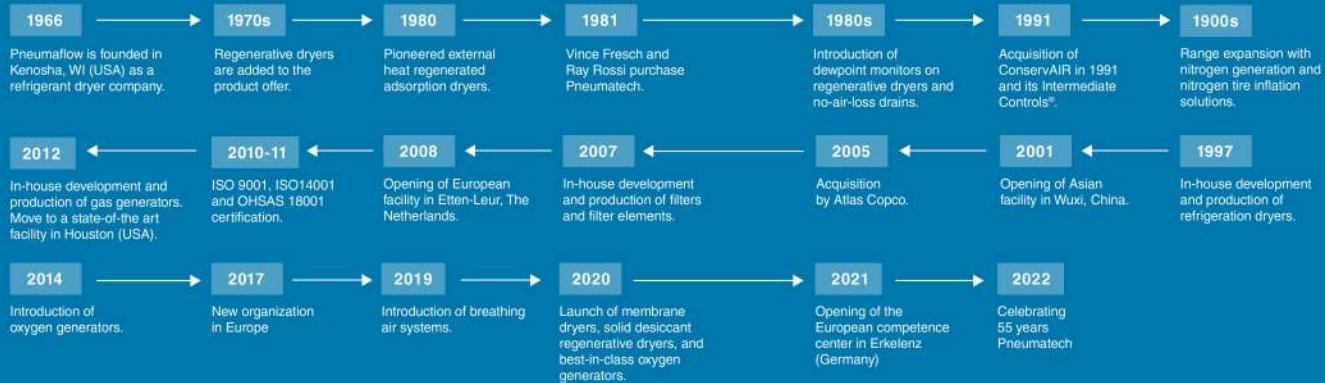
Pneumatech was founded in 1966 in Kenosha, Wisconsin (USA). What started as a family business has since grown into the world's trusted expert in air treatment and industrial gas solutions.

Worldwide presence

As our expertise and product offer has grown, so has our worldwide reach. We now have a presence on all continents, including manufacturing facilities in Europe, the UK, China and the US, major distribution centers in Belgium, The Netherlands, and China, and local representation in over 20 countries.



- In-house production**
 - Belgium: Adsorption dryers, gas generators & welded filters
 - Italy: Refrigerant dryers & threaded filters
 - Netherlands: Engineered air & gas purification solutions
- Research & development centers**
 - Belgium: Adsorption dryers, gas generators & welded filters
 - Italy: Refrigerant dryers
- Global competence & training center**
- Local sales offices worldwide**



THE PRINCIPLES THAT GUIDE US

The position of industry leader is not one you can claim. It is one you must earn. For Pneumatech, this achievement is based on 5 guiding principles:

Commitment to excellence

Our customers expect superior reliability, efficiency and quality. We work tirelessly to give them just that. It is reflected in the energy savings our products deliver, but also in the certifications we have invested in and have received (ISO 9001, ISO14001 and OHSAS 18001).

Pioneering innovation

Pneumatech has introduced a number of industry firsts, from external heat regenerative dryers in the 1980s to variable speed refrigerant dryers in the 2000s.

An ever-enhancing product offer

Our title of air treatment and industrial gas company is backed by a comprehensive and evergrowing product portfolio. This allows us to service a wide range of industries.

An expert, solution-driven team

It's a cliché because it is true. It's all about the people. That is why we never cease to invest in recruiting, training, continued education, and personal development.

Growing presence and reach

As Pneumatech's customer base expanded across the globe, Pneumatech has followed. We extended our reach to ensure our customers get local support and the fastest possible service.

OUR PROMISE TO YOU



Pure protection

Our customers expect superior reliability, efficiency and quality. We work tirelessly to give them just that. It is reflected in the energy savings our products deliver.



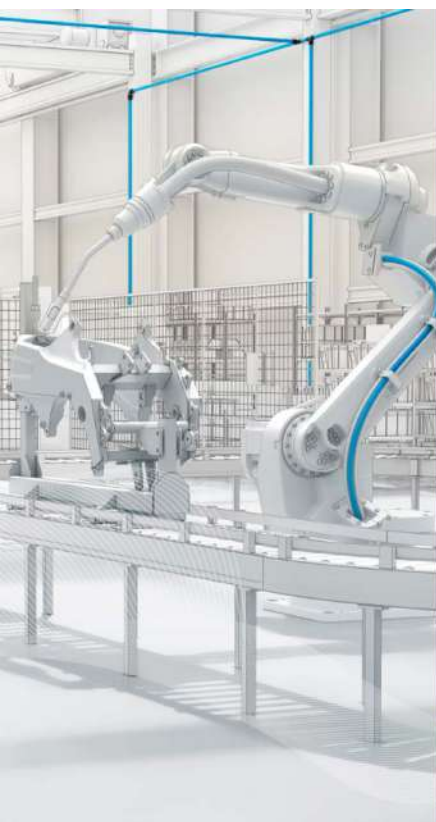
Pure production

Outstanding durability and excellent service to keep your production up and running optimally.



Pure profitability

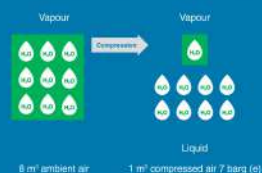
The lowest energy consumption and lifecycle cost for your compressed air treatment applications.



03

AIR TREATMENT SOLUTIONS

Compressed air must be treated to remove the contaminants that can damage your air and gas system as well as your final products. Pneumatech has all the solutions needed to protect your upstream equipment, to ensure your compressed air runs more efficiently, and to safeguard your product quality.



Contaminants in compressed air

Three types of contaminants can be present in compressed air: water (liquid or vapor), dust and dirt particles, and oil.

Water vapor

Water vapor is naturally present in ambient air and is drawn in by the compressor along with the air. When the air is compressed, the water vapor becomes more concentrated, increasing the risk of condensation.

Dust

Dust and various types of particulate matter in free air will also end up in your compressed air if you don't remove it through filtration.

Oil

A compressor uses oil to lubricate its moving parts. Over time, the oil can break down and become contaminated with dirt and other particles, which can be carried into the compressed air. Additionally, compressors can leak oil, which can also contaminate the air system.

Pneumatech: the reliable air treatment solutions

Count on Pneumatech to give you the air treatment you need.

- Dryers
- Filters
- Aftercoolers
- Drains
- (Oil-) Water separators
- Water detectors

All our solutions are built using our in-house development, advanced technologies, and superior materials to ensure superior results and reliability, while avoiding significant pressure loss in your compressed air system.



Avoid quality and performance problems

Untreated compressed air can cause a variety of quality and performance issues:

- Corrosion of pipe lines
- Compromised product quality
- Malfunctioning of controls
- Ice build-up
- Cultivation of microorganisms and bacteria
- Damaged production equipment that results in inefficiencies and increased costs
- Air pollution that can create an unhealthy work environment
- Pollution of the condensate

GAS GENERATION SOLUTIONS

If your operations require nitrogen or oxygen, producing your own with Pneumatech is the smartest choice. That's because our on-site gas generators are more cost-efficient, dependable and sustainable than gas deliveries.

The benefits of on-site gas generation



Cost efficiency

Producing your own nitrogen or oxygen with the purity you need allows you to significantly reduce your cost of gas.



Sustainability

Eliminate the transport emissions that come with gas deliveries. In addition, Pneumatech's on-site generation solutions are super efficient, minimizing your energy use and possibly your environmental footprint.



A reliable nitrogen or oxygen supply

No need to count on external vendors. On-site generation gives you complete control over your nitrogen supply.



No logistics

Say goodbye to always monitoring your nitrogen or oxygen supply, working with vendors, and tracking and handling deliveries.



Pneumatech: the better gas generation solution

A complete offer

Thanks to our extensive product portfolio, we can deliver the right gas generation technology and generator size to meet your specific needs.

Best-in-class performance

Our nitrogen and oxygen systems take all of the benefits of on-site generation to an entirely new level – from unprecedented cost and energy savings to giving you a purity and cleanliness guarantee others cannot.

Advanced connectivity

Monitor and control your Pneumatech gas generator remotely and even integrate it into your DCS, SCADA, or PLC systems.

Compact

Most of our customers don't have room to spare on their production floor. Our engineers work hard to keep our gas generators as compact as possible to give you maximum installation flexibility.

A complete set-up

Pneumatech gas generators can come fully equipped, including air and gas quality sensors, pressure regulators and flow meters.

AIR TREATMENT PRODUCTS

Pneumatech has a comprehensive range of air treatment equipment, including all types of dryers, filters, drains and (oil-)water separators. That means you can get top-quality, fully compatible air solutions from just a single source.

Dryers

Moisture is the enemy of your air system. Pneumatech dryers remove moisture from your compressed air to the dew point your applications require. Our adsorption (desiccant) dryers, membrane dryers, and refrigeration dryers come in the right size and with the right technologies to meet your air quality, performance, and efficiency needs.



Filters



Relying on our advanced and proprietary filtration media, Pneumatech offers various types of compressed air filters to remove all types of contaminants from your compressed air. For general applications we have oil coalescing, particulate and oil vapor filters in a range of flows and pressures. Pneumatech is also your partner for breathing air, silicone-free, sterile and process filtration.

Condensate management

Oil and water condensate are inevitable by-products of generating compressed air. Our condensate management solutions separate the oil from the water and help you to dispose of it according to your local regulations.

- Aftercoolers: air-cooled, water-cooled, and closed-loop liquid coolers
- Drains: mechanical float drains, timer, and electronic zero loss drains
- Oil-water separators
- Water detectors
- Water separators



GAS GENERATION PRODUCTS

Pneumatech offers nitrogen and oxygen generators for a wide variety of applications, from the very small to industrial-size. If you use N₂ or O₂, our high-performance, high-efficiency generators will give you advanced operational savings and connectivity features.



The right technology for the right result

PSA

Pressure Swing Adsorption (PSA) separates nitrogen from compressed air using a carbon molecular sieve (CMS). As the air passes through a vessel filled with CMS, the oxygen in the air is adsorbed by the CMS. This allows only nitrogen with a purity of up to 99.999% to reach the outlet. PSA generators are ideal for high-purity, high-flow applications.

To generate oxygen, a different adsorbent called Zeolite Molecular Sieve is used. The nitrogen in the air is adsorbed by the ZMS, leaving just the oxygen. PSA oxygen generation can achieve a purity of up to 95%.

Membrane

Membrane technology is a very simple, reliable and continuous N₂ production method. Compressed air is pushed through hollow polymer membranes. The oxygen in the air permeates through the fiber walls and escapes into the atmosphere. This leaves quality nitrogen with a purity between 95% and 99.5% at the generator outlet.

High-pressure nitrogen skid solution

Our FPNG NE nitrogen skid provides an all-in-one, plug-and-play solution. It includes a variable speed drive (VSD) compressor, high-pressure booster, premium PSA nitrogen generator, and storage and treatment. It has everything you need for in-house production, allowing you to eliminate gas purchasing and deliveries.



PNEUMACHECK AIR & GAS AUDITS

A PNEUMACHECK audit helps you determine how you can maximize your air or gas equipment to improve its performance and energy savings.



A complete auditing solution

1

Measurement:

Our specialist comes to you to install the PNEUMACHECK Box, a plug-and-play measurement, monitoring and logging device.

2

Analysis and expertise:

Our experts analyze and summarize your data in one report filled with actionable insights.

3

Result:

Optimizing your air and gas system allows you to cut your energy costs, reduce your environmental footprint, and meet your quality and safety standards.

PNEUMACHECK audits

- Nitrogen and compressed air flow
- Air and gas PDP
- Air and gas pressure
- Air, gas and vacuum leakages
- Air system power consumption
- Air oil vapor content
- Air particle content
- Gas purity

Measurement tools

Rely on Pneumatech's proven and innovative measuring technology to record and analyze your air and gas installation performance.

- Chart recorders
- Dew point meters
- Flow sensors
- Leakage detectors
- Calibration
- Software



OUR SERVICE OFFER



1

Local technical support

Our skilled service experts are always ready to provide scheduled maintenance, proactive visits or urgent interventions. Thanks to our global presence, we're never far away.

2

Genuine parts

Choose from our extensive original parts offer to ensure the best possible performance of your machine.

3

Service plans

Regular maintenance is one of the surest ways to avoid faulty equipment or production breakdowns. Pneumatech service plans keep your installation in optimal condition.

6 reasons why a service plan always is a smart idea:

1. **Peace of Mind:** Focus on your core business instead of air and gas system performance and maintenance.
2. **Uptime:** Maximize your system's uptime ratio.
3. **Energy savings:** Optimize your energy efficiency and operational savings.
4. **Budget control:** No unwelcome surprises, no unforeseen extra charges.
5. **Extended warranties:** Cover all parts of the machine to give you complete peace of mind.
6. **Administrative savings:** Eliminate service-related administration work.

4

Advanced services and connectivity

With the Intelligent CONnectivity System (ICONS), you get data and insights from your compressed air and gas generation system delivered to your computer, tablet or smartphone.

- Increase the reliability of your machines by identifying problems before they become a threat to the continuity of your production.
- Analyze and optimize your energy consumption and CO₂ emissions.
- Receive high-quality energy reports ensuring the ISO50001 compliance of your site.



APPLICATIONS

Many applications have very specific compressed air or industrial gas requirements. Pneumatech's experts have the industry-specific know-how to come up with the right solution.

Compressed air applications



Textiles
High-quality compressed air plays a crucial role in textiles production.



Food & beverage
Food and beverages must be safe to consume and tasty. That's why stringent compressed air standards apply for the F&B industry.

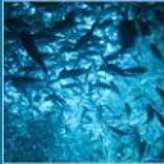


Pharmaceutical
The pharmaceutical industry must meet stringent quality standards. And that begins with very clean compressed air.



Cement
Untreated compressed air can compromise the quality of cement. Pneumatech solutions help achieve the air quality needed for cement production.

Oxygen applications



Aquaculture
Aquaculture requires the appropriate oxygen purity and volume to maintain optimal fish health and growth. Pneumatech can help.



Biogas
The production of biogas relies on oxygen. Pneumatech O₂ generation systems provide the correct flow and purity.



Hyperbaric oxygen
Pneumatech oxygen generation systems reliably and cost-efficiently provide the high-purity O₂ that hyperbaric oxygen applications count on.



Ozone production
Oxygen plays a crucial role in the production of ozone. A dependable supply of high-flow, high-purity oxygen is a must.

Nitrogen applications



Laser cutting
To ensure that they always have a steady supply of high-quality nitrogen available, laser cutting professionals rely on Pneumatech.



Coffee production
Once a coffee bean is roasted and ground, it starts to age and its freshness starts to decline. That is why food-grade nitrogen is so important in coffee packaging.



3D printing
Nitrogen plays an essential role in additive manufacturing, which is more commonly known as 3D printing. Pneumatech solutions deliver of top-quality N₂.



Breweries
Brewing beer requires expertise, carefully selected ingredients, the right equipment – and nitrogen, especially in packaging and in tank purging. That is why it is crucial for breweries to have access to top-quality nitrogen.



Lithium-ion battery production
The cutting-edge Li-ion industry demands innovative nitrogen solutions. This is an area where Pneumatech excels.



Tire inflation
Companies with large vehicles, vehicles that travel great distances, or those subject to high stress should use nitrogen for tire inflation. The better option for these companies is to generate their own nitrogen with a Pneumatech N₂ system.

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