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ALWAYS PROVIDE  
**THE BEST**

## **KONITRO** NITROGEN GENERATORS





Konitro Nitrogen generation systems can separate nitrogen molecules from compressed air. The Konitro Nitrogen gas generators are capable of purities of up to 99.9999% at flow rate required for your application.

### Purification

The compressed air that's flowing to Konitro Nitrogen generator dries well with +3 °C refrigerated dryer and oil carry over removes by activated carbon tower

### Adsorption

The purified compressed air pass through a column of tightly packed material at pressure made of carbon called a Carbon Molecular Sieve (CMS). The CMS only allows the smaller nitrogen molecules to pass through whilst the larger molecules of oxygen and other molecules are adsorbed by the CMS leaving high purity nitrogen. The Two CMS columns of Konitro Generators one column is depressurized the other pushes the air through the sieve at pressure hence the name Pressure Swing Adsorption.

### Applications

Nitrogen is using at Food, Healthcare as well as in wide range of industrial applications can cut the production costs by using the Konair Konitro Nitrogen Generators:

#### Food industry:

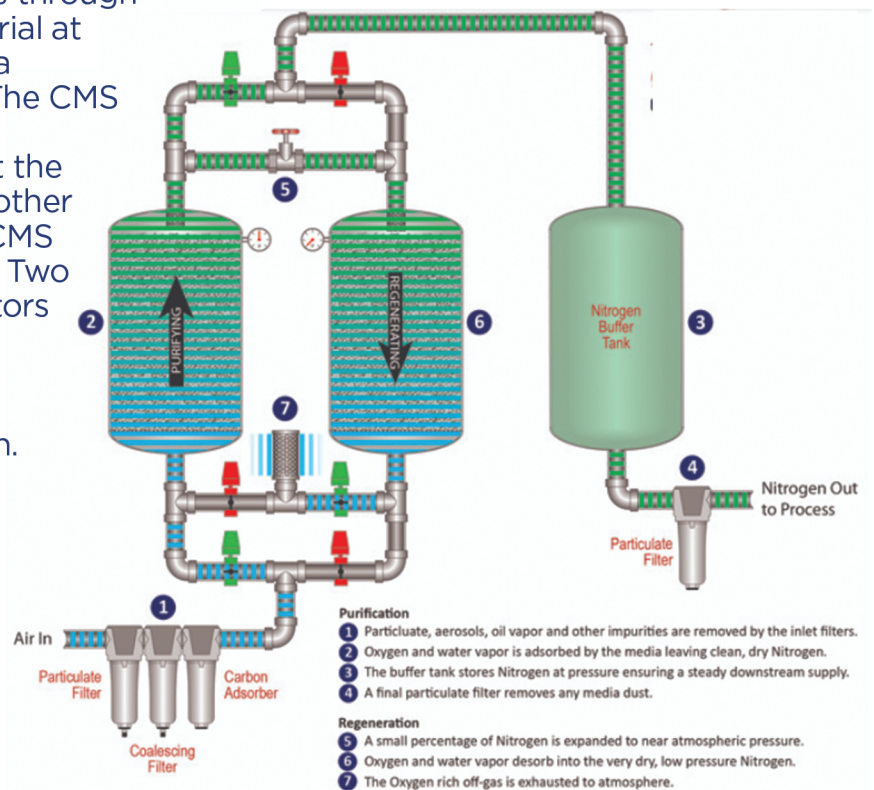
Nitrogen is widely used, either pure or in a mixture, in the preservation of industrial foodstuffs, as main component of a protective atmosphere.

#### Chemicals

Nitrogen is used as an inert gas in many chemical production processes. Nitrogen can be used as a miscible gas to reduce the viscosity – and improve the flow – of oil and other hydrocarbons in enhanced recovery operations. On-site Konitro Nitrogen generators also provides a cost-effective supply of nitrogen, which can be used to enhance combustion.

#### Iron and steel

The iron and steel industry uses nitrogen in various processes. For example, it is used to produce stainless steel and to purge equipment and tanks linked to this process.



### **Electronics**

Nitrogen is used to create controlled and inert atmospheres for manufacturing electronic products in processes such as soldering printed circuit boards and electrical and semiconductor circuits.

### **Health sector**

Nitrogen is used to freeze biological samples of all kinds to avoid damage in transport and conservation processes. The health sector also uses liquid nitrogen for the destruction of diseased tissue.

### **Pharmaceutics**

Nitrogen molecules are present in almost every synthetically manufactured drug available today. Nitrogen gas plays a crucial role in the synthesis of several classes of drugs, including vital antibiotics. Nitrous oxide, a popular anesthetic agent, is gaseous from nitrogen.

### **Chemical analysis and chemical industry**

Nitrogen is commonly used during sample preparation in chemical analysis. It is used to concentrate and reduce the volume of liquid samples. Nitrogen is also important to the chemical industry. It is used in production of fertilisers, nitric acid, nylon, dyes and explosives.

### **Inerting of Volatile Industrial Environments**

The non-reactive nature of gaseous nitrogen makes it ideal for use in industrial environments with a high risk of spontaneous combustion. Highly explosive chemical plants can be made safer by using nitrogen gas to displace oxygen from process equipment.

### **Gas for Tire Inflation**

Nitrogen gas provides better pressure retention in tires inflated with it when compared to conventional air-filled tires. Overall, nitrogen-filled tires improve gas mileage and tire longevity.

### **Mining Safety**

Mining is a high-risk production process requiring several strict safety protocols. In the case of fires within mines, nitrogen gas can safely put out fires by displacing oxygen from the air. A similar approach is used during mine abandonment, where gaseous nitrogen is pumped into volatile spaces to inert them.

### **Fire suppression systems**

Fire suppression is achieved by reducing the oxygen concentration where the fire will extinguish, while remaining at a level acceptable for human exposure for a short period of time.

### **Light bulbs industry**

Bulbs should not be filled with air since hot tungsten wire will combust in presence of oxygen. You can't maintain vacuum either or external atmospheric pressure will break the glass. So, they must be filled with non-reactive gas like nitrogen. We can use inert gases like argon or helium instead of Nitrogen, but they are more expensive & rarer than nitrogen.

## HIGH LIGHTS

### CONSTRUCTION BASE

- The inlet and outlet diffusers have larger design provide easy maintenance
- The special design of silencers provide so low working noise level compare to available option.
- Modified mechanical sensor provide long working life time
- Designed for long lifetime

### FUNCTION BASE

- Konitro Nitrogen Generators have inlet speed control, by this way system use compressed air economically and efficiently
- Konitro Nitrogen Generators only deliver set value of purity, the low value of purity from start up return back to system, system use returned nitrogen purity for reaching quickly to set value of purity in minutes.
- Konitro Nitrogen Generators measure purity constantly, if purity level is lower than set value the nitrogen return back adsorption stage by this way we guarantee deliver only set value of purity.
- Konitro Nitrogen Generators have Full automation and remote control features
- Product flexibility regarding flow and purity
- Automatic turn down
- High availability and reliability

Capacities from 1 to 3000 Nm/h  
Purities up to 99,9999vol.-%

All KONITRO systems are designed for unattended operation and automatic load adjustment.

Independent and low-cost on-site production:

- Production is not affected by ambient conditions
- Low power consumption
- Minimized maintenance and operating costs

Exact purity for every application

In-house placement and production

Sound abatement:

Professional sound abatement to meet highest requirements





## INNOVATION FROM KONAIR ALL IN ONE FORM

KONAIR COMPRESSOR offer KONITRO NITROGEN GENERATORS with ALL IN ONE FORM that Screw compressor, Refrigerated Air Dryer, Nitrogen generator and nitrogen booster located in same canopy:



All in one option provide compact and easy use:

- S** from transportation cost
- A** from occupied space
- V** from installation cost and time
- E** from working noise level
- &**
- E** for location, one canopy for whole system
- A** for start-up, press on system work
- S** for control with one controller 7" from whole system
- Y** for maintenance, every unit open to free space

Many years of experience in compressed air guarantee high reliability of all KONITRO systems,  
We always provide the best...



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**THE BEST**

**HEADQUARTERS:**



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