**What are the main industrial uses of nitrogen?**



Nitrogen is one of the most common elements in the Earth's atmosphere， and it has many industrial uses. This is because one of the most unique properties of this colorless and odorless gas is its ability to build multiple bonds with other elements and compounds. As a result， this makes compressed nitrogen very versatile， so it can be used in a variety of forms in different industries.

5 Industrial Applications of Nitrogen

While the primary industrial use of nitrogen is ammonia needed to make fertilizers， explosives and other materials， its uses extend far beyond these applications. From food packaging to pharmaceuticals， nitrogen can be found in many more places and has more uses than you may realize. Read on to learn more about a few important uses in which nitrogen plays a very important role.

Food packaging: It is common practice for food processing companies to use compressed nitrogen to replace the oxygen in perishable food packaging. Without oxygen， the shelf life of foods such as meat， fruits， vegetables and various snacks can be extended. Nitrogen also adds a cushioning layer around the food to keep it safe during transport.

Chemical overlays: Nitrogen is commonly used to prevent fires and explosions in hazardous atmospheres， such as chemical equipment or manufacturing facilities， by reducing oxygen levels below the explosion limit.

Electronics: Nitrogen is used in the process of assembling electronics when two electronic components form a permanent connection， also known as soldering. The gas is used to reduce the surface tension so that there is a cleaner break away from the electrical connection. Nitrogen is also used in the main processing systems of computers to prevent them from overheating.

Laboratories: Laboratories require a very specific environment to ensure that tests and results are performed accurately. Nitrogen is used to control oxygen levels， humidity and temperature， and to maintain the proper atmosphere for highly sensitive procedures and equipment. In addition， there is a variety of laboratory equipment that requires nitrogen for purging.

Laser cutting: Nitrogen is used as a purge gas in the steel industry. It is used as an auxiliary gas to blow away molten material to achieve stronger stainless steel or aluminized steel products that are also more resistant to corrosion.