THE ONSITE
GAS COMPANY
inmatec.com

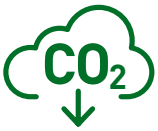
INMATEC GaseTechnologie

IMT PN LASER

Produce nitrogen yourself
Safe, cost-effective, and environmentally friendly laser cutting

Nitrogen production directly on site

SIGNIFICANT COST SAVINGS



CO_2 REDUCTION

INDEPEN-DENCE

LOW MAINTENANCE AND RELIABLE

Nitrogen is an indispensable protective gas for all laser cutting applications. The **IMT PN** LASER generators from Inmatec produce nitrogen directly from the ambient air. The PSA (Pressure Swing Adsorption) technology used filters oxygen and other components from the air and produces pure nitrogen (N_2).

Unique on the market is the two-stage and 100 % oil-free process in combination with an H_2KAT hydrogen catalyst from Inmatec. The nitrogen produced via the generator, which has a purity of 99.9 % (3.0), is enriched with tiny amounts of hydrogen (H_2). The H_2 and O_2 molecules in the H_2KAT are bound to form H_2O. Thus, the addition of H_2 removes the remaining oxygen molecules from the nitrogen in an energy-efficient manner and purifies it to a purity of up to 99.999 % (5.0). The N_2 is then compressed in a completely oilfree booster and stored in cylinder bundles. On-site N_2 generation with low-maintenance and oil-free Inmatec technology ensures a continuous, oil-free, and uninterrupted N_2 supply, making you independent of suppliers and supply bottlenecks.

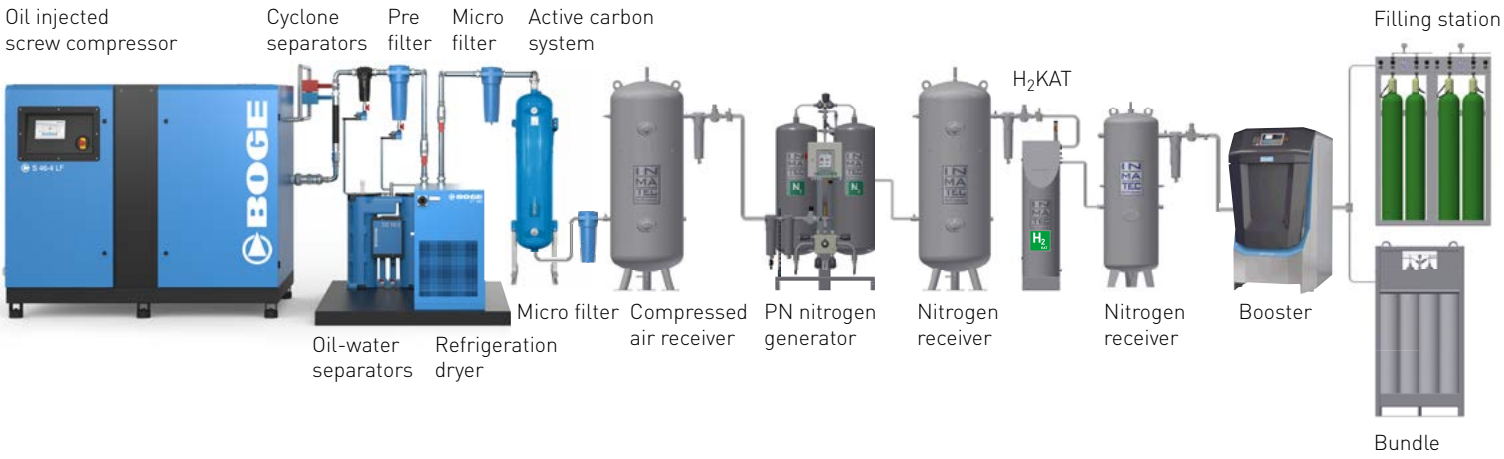
BETTER FOR YOUR WALLET

The N_2 supply is a significant cost factor in laser cutting. On-site N_2 generation offers a solution to significantly reduce these costs. With Inmatec's two-stage PSA hydrogen process, up to 70 % of the costs can be saved compared to liquid nitrogen and thus very low amortisation times can be achieved.

BETTER FOR THE ENVIRONMENT

Inmatec technologies – in combination with BOGE heat recovery techniques – help to keep the primary energy demand for N_2 generation extremely low, thus reducing energy consumption and CO_2 emissions to a minimum. This enables BAFA funding and protects the climate and the environment.

IMT PN LASER
Modules for all requirements



ISO 9001:2015

Certified quality management system according to ISO 9001:2015

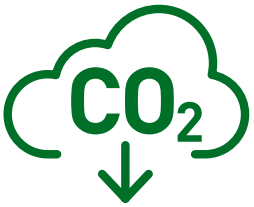
A system for every application

Laser cutting makes it possible to cut and separate a wide variety of materials with high precision. As a protective gas, the self-produced nitrogen creates an oxygen-free environment in the area of the laser beam, thereby effectively preventing oxidation and ensuring high-quality, filigree contours, and cutting edges. The result is a high surface quality for the machined workpieces.

In addition, N_2 is the ideal medium to flush the beam path of the laser and thus prevent scattering of the laser beam. The high-purity, self-produced nitrogen can be used in a wide variety of laser cutting machines such as CO_2 lasers or fibre lasers.

CO_2 laser – Beam source with high reliability – even in applications where things are more robust.

Faserlaser – A long service life and excellent beam quality make fibre lasers the first choice for a wide range of applications.



Investment in a sustainable future

Sustainable production has a significant influence on the competitiveness of a company. Sustainable management in the sense of Corporate Social Responsibility (CSR) requires investments to use natural resources sparingly and to protect the climate and the environment.

Investing in environmentally friendly technologies initially ties up funds, but the effort pays off in the end. Thus, by reducing carbon dioxide (CO_2) emissions in the context of production and transport, a contribution is made to preventing rising temperatures and further man-made climate change. In addition, companies benefit economically through significant savings in energy costs, reduced energy taxes, and government subsidies. In this way, investments in Inmatec N_2 generation plants usually pay for themselves in a very short space of time.

Your partner in nitrogen supply

We are a leading manufacturer of nitrogen and oxygen generators. With our stationary and mobile plants, we are setting new standards in the on-site production of nitrogen. With N_2 production directly on site, companies avoid supply bottlenecks and support climate and environmental protection with the help of environmentally friendly gas production.

YOUR ADVANTAGES AT A GLANCE

- **Experience since 1993 with over 9,000 plants installed worldwide**
- **Development and production “Made in Germany”**
- **Reliable technology**
- **Low maintenance**

INMATEC
GaseTechnologie
GmbH & Co.KG

Otto Boge Strasse 1-7
33739 Bielefeld · Germany

Site:
Gewerbestrasse 72
82211 Herrsching · Germany

Fon: +49 8152 9097-0
Fax: +49 8152 9097-10
info@inmatec.de / inmatec.com