

## PECTHERM INMATEC

OXYGEN AND NITROGEN PRODUCTION ONSITE

# THE POWER OF GAS GENERATION



OXYGEN  
From 0.2 NM<sup>3</sup>/H - 5.000 NM<sup>3</sup>/H  
O<sub>2</sub>-PURITY UP TO 99.5%



NITROGEN  
From 0.2 NM<sup>3</sup>/H - 10.000 NM<sup>3</sup>/H  
N<sub>2</sub>-PURITY UP TO 99.9999% (6.0)



MADE IN GERMANY

# COMPANY PROFILE

PECTHERM Pvt. Ltd., is a leading Company for sustainable solutions in Healthcare, Energy and Environment. Founded in 1999. We have been working in the field of Onsite GAS generation plants, Compressed Air Stations, Boilers, Heaters, Water Treatment, Chemicals, Environment, Solar etc. Since last 18 years and have sufficient quality work force for Sales and Services of these Equipments. These strengths have given PECTHERM recognition in the market and we strive to deliver high-added value products and solutions in the medical and industrial sector.

PECTHERM Pvt. Ltd., in collaboration with INMATEC GaseTechnologie GmbH & Co. KG, Germany, provides state of the art technology in Medical Oxygen and Nitrogen generation plants on-site.

## Nitrogen Production from Compressed Air

Industries and applications :

PACKAGING FOR FOOD & PHARMACEUTICALS  
INERT STORAGE & BLANKETING  
LASER CUTTING & SOLDERING  
GAS ASSISTED INJECTION MOULDING  
HIGH PRESSURE CYLINDER FILLING  
LARGE SCALE LABORATORY

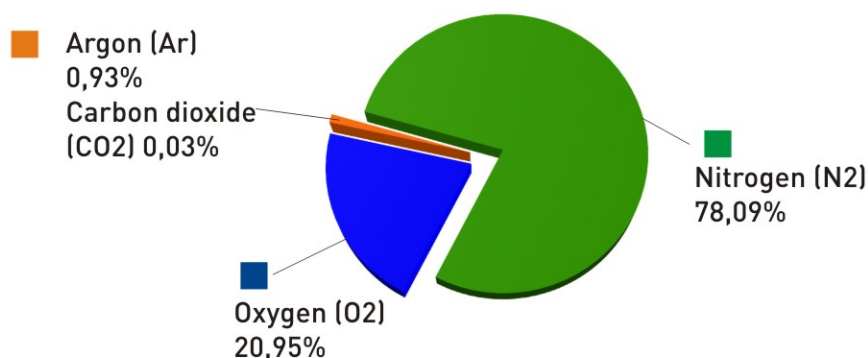
## Oxygen Production from Compressed Air

Industries and applications :

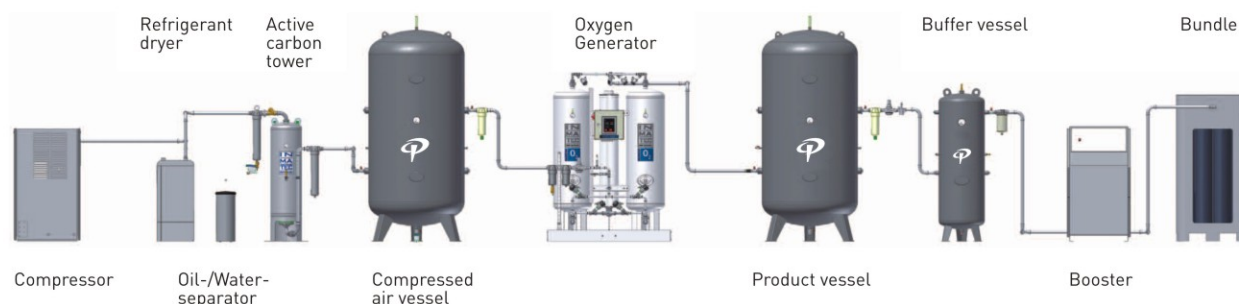
HOSPITALS  
LABORATORIES  
PHARMACEUTICALS  
FISH FARMING  
WASTEWATER TREATMENT

By means of the PSA technology the ambient air is separated into its components nitrogen and oxygen. The high-purity oxygen is subsequent available for further clinical application procedures.

COMPOSITION OF AMBIENT AIR



Nitrogen is a gas being inodorous, flavourless, and also inert, which constitutes  $\frac{4}{5}$  of the atmosphere.



PECTHERM deliver, install and commission the full turn-key plants or standalone generators. It is our mission to be your preferred innovative, dynamic and environment friendly supplier of onsite oxygen and nitrogen



# PLUG & PLAY OXYGEN-GENERATION PLANTS

## O<sub>2</sub> OXYGEN GENERATOR ENTIRE SYSTEM



### COMPLIANCE

INMATEC is certified according to the Medical Device Quality Management System DIN ISO 13485:2008 for manufacturing of O<sub>2</sub> Medical generators.

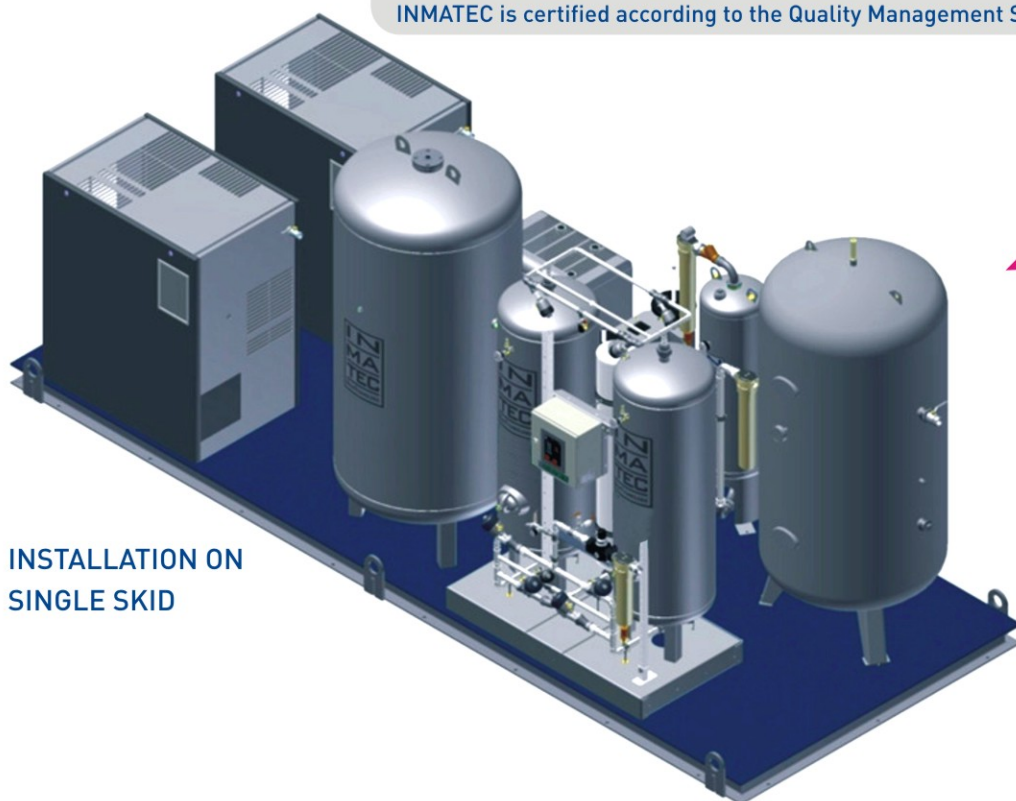
INMATEC is certified according to DIN ISO 10083:2008-12 supply systems for oxygen concentrators for use with medical gas pipeline systems.

INMATEC O<sub>2</sub> Medical generators meet the requirements of DIN ISO 10083:2008-12 for automatic restart after power failure.

All parts and components (valves, piping, tanks, filters and sensors) have an oxygen admission for medical gases

INMATEC O<sub>2</sub> Medical generators meet the requirements of DIN ISO 10083:2008-12 for the continuous monitoring of CO and CO<sub>2</sub>.

INMATEC is certified according to the Quality Management System DIN ISO 9001:2008



INSTALLATION ON  
SINGLE SKID

Cost Savings  
upto

**60%**

### Oxygen Standards

PSA oxygen modules are able to produce oxygen compliant with the United States Pharmacopeia (USP) monograph for Oxygen 93 or the European Pharmacopeia (EurPh) monograph for Oxygen 93. Both standards were created expressly to permit the use of PSA produced oxygen.

Component	EurPH Oxygen 93	ISO 10083	USP Oxygen 93	Laboratory Assay from a INMATEC PSA Module
Oxygen v/v%	93 ±3%	> 90.0 %	> 90% < 96%	93 - 95 %
Carbon Monoxide	5 ppm	5 ppm	5 ppm	0.11 ppm
Carbon Dioxide	300 ppm	300ppm	300 ppm	0.82 ppm
Water	67 ppm	37ppm	-	3.8 ppm



Medical Devices Quality Management System  
ISO 13485:2003 & ISO 10083:2008



Quality Management System  
DIN ISO 9001:2008



ATEX



GERMANISCHER LLOYD



BUREAU  
VERITAS



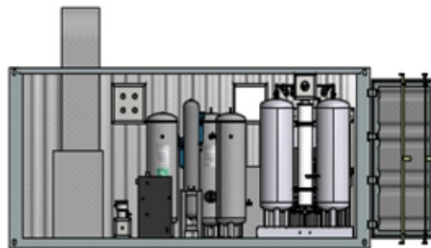
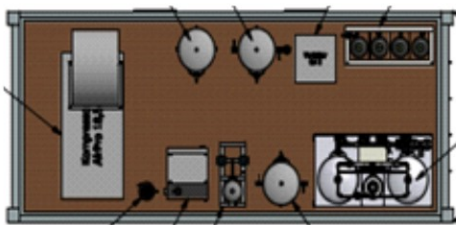
BRITISH STANDARD



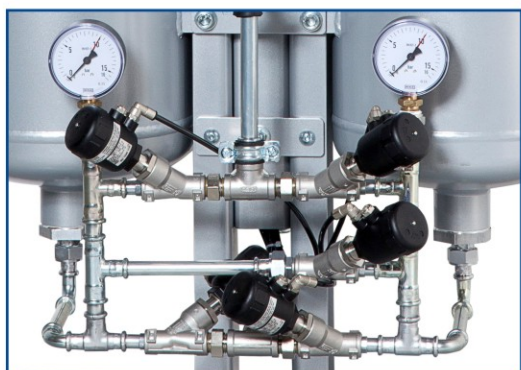
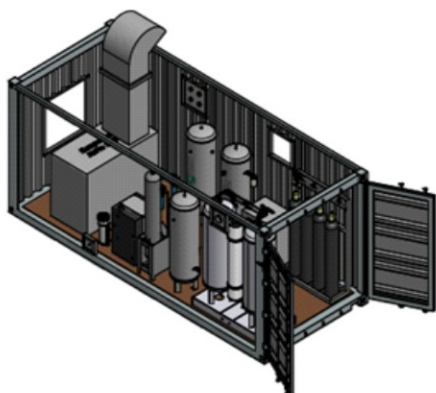
TÜV  
CERT



# INSTALLATION OF PLANT INSIDE AN ISO CONTAINER



INSIDE VIEW OF CONTAINER



- » The integrated lubrication chamber ensures self-lubricating piston movements resulting in zero maintenance downtime for otherwise needed lubrication. A status indicator fitted to each valves shows the operator clearly the valve function and status at any time.
- » All process piping in galvanised steel, press-fitted pipes type MAPRESS for maximum durability and leak free operation.



Oxygen Purity Sensor



Flow & Consumption Meter



Oxygen Monitor



Pressure dew point sensor



# COMPARISON EXTERNAL PURCHASE VS. ON-SITE

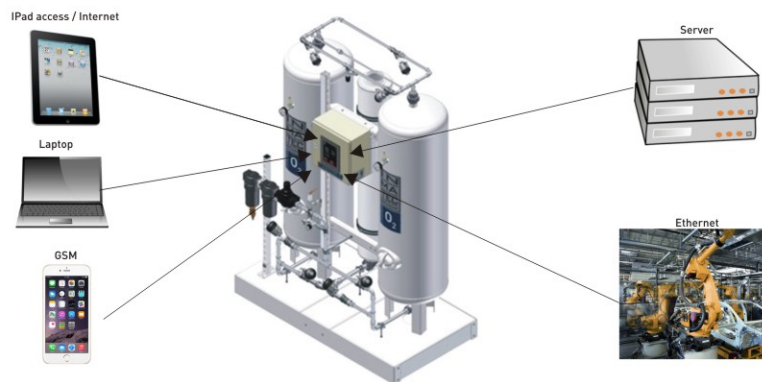


- NOC from Explosive department, annual renewal required
- Space requirement for storage of cylinders, bundles
- Continued order- and invoicing procedures
- Building construction for tank installation
- Logistic efforts
- Increased CO2 balance
- Dependency on pricing
- Quality control only for batches
- Hazardous goods transportation
- Highly Hazardous & Inflammable



## INMATEC- Onsite PSA Generator :

- » Double twin vessels manufactured according to the Pressure Equipment Directive and with the stringent German Technically Supervisory Board [TÜV] approval.
- » Vessels are powder coated in RAL 9016 and calculated for the demanding unlimited load cycle requirement of the German TÜV.
- » High quality, long-life molecular sieve ZEOLITE with industry leading energy air factors resulting in lowest possible differential pressure as well as most economic m3 air to oxygen ratios. Lifetime of more than 18 years.



- » 9" size color touch control panel with offering unique features, state of the art Human Machine Interface [HMI].
- » Display - purity, outlet pressure, operating hours and all other connected measurement sensor values.
- » Full instruction manual with operating procedures, service notes and drawings is saved in the Touch Control Panel.
- » Automatic service reminders for periodic maintenance due.
- » Automatic start option after power outage as require by ISO 10083.
- » USB port for export of process data, alarms, log data and software updates Ethernet port for direct cable or remote desktop connection through the network and/or Internet with full remote monitoring and control functionality by common Internet browser.
- » Ipad and iPhone apps offering the possibility to use popular smartphones and tablets as remote control with full functionality of all control and monitoring features of the touch control panel.

# WHY PECTHERM-INMATEC ARE THE WISE CHOICE?

PECTHERM-INMATEC provides you with Gas Generator Plants to produce Onsite gases perfectly matched to a wide variety of applications. No matter your need or application, we can provide state-of-the-art design to meet your purity requirements.

So, why buy expensive bottled or bulk Nitrogen and Oxygen from gas companies when you can make you own?



Benefits of PECTHERM-INMATEC gas plants comparing to other gas sources:

- » Only produce the gas, when and where you need
- » No loss of production time due to running out of gas
- » Quick pay-back less than a year.
- » 'No' on-going costs (refills, delivery and transportation charges, etc.)
- » Energy efficient. Only electricity is needed to run the generators
- » No safety risks of handling of high pressure cylinders or liquid oxygen.
- » In comparison with cylinders it gives overall cost reduction up to 60% to 80%.
- » Safe delivery; controlled flow and uninterrupted gas



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In collaboration with



**INMATEC**  
Gas Technologies  
GmbH & Co. KG  
GERMANY

[www.inmatec.com](http://www.inmatec.com)



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