

TRUSTED TO DELIVER EXCELLENCE

OXYGEN 
< From 0.2 Nm³/H - 5000 Nm³ / H
O₂-PURITY UP TO 99.5%



Wonder Technic Quality



MADE IN GERMANY





COMPANY PROFILE



PECTHERM Pvt. Ltd., Founded in 1999. Specializes in the field of Oxygen generators, Nitrogen generators, Air Compressors, Steam Boilers, Heaters, Water Treatment Plants, Performance Chemicals etc. Our reputation for engineering excellence has been built over 20 years of expertise. Our promise of **'trusted to deliver excellence'** embodies the values of the business: trust, deliver and excellence.

Trust : is something we know can only be earned. It comes from the way we behave towards our colleagues, our customers, shareholders and partners. They need to know we can be relied on to do the right things in the right way.

Deliver : part of earning trust is delivering on our promises. We seek to meet our customers' needs by ensuring the quality, performance and reliability of our products and matching this with first-class services that add value and that they can rely upon.

Excellence : standard, a way of life; few companies can aim higher. If we can be trusted and we deliver on our promises then we will be regarded as an excellent company; one that people are proud to work for, work with and, invest in.

PECTHERM Pvt. Ltd., in collaboration with **INMATEC Gase Technologie GmbH & Co. KG, Germany**, provides wonder of technology, energy-optimized Oxygen generators that meets international standards for oxygen production in the medical and pharmaceutical sectors. **INMATEC** is an international market leader in the production of nitrogen and oxygen generators developed and produced in Germany. Over **6000 Nos. Generators** are running all around the World.

All products and installations, as well as components are designed and produced exclusively at our two plants in Herrsching and Frankfurt-this is real 100% **"Made in Germany"**!



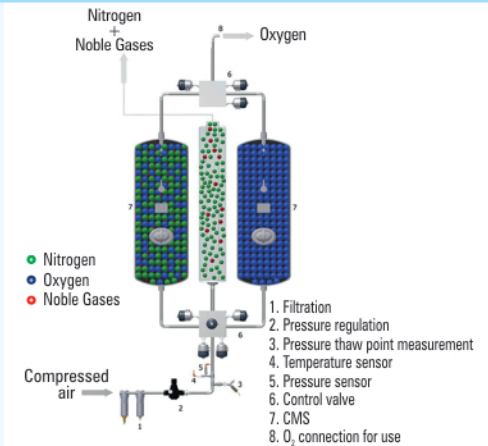
THE PSA TECHNOLOGY

The special INMATEC Oxygen Pressure Swing Adsorption (PSA) offers solutions and processes in the area of oxygen generation.

This reliable and cost. effective method of oxygen generation is used directly onsite, especially in medical care (hospitals), pharmaceutical and water treatment.

Using Pressure Swing Adsorption (PSA) technology and specially developed adsorbent (zeolite), the ambient air (oil-free compressed air) is separated into its constituent parts of nitrogen and oxygen.

Subsequently oxygen is available in delivery quantities of 0.5-2.000 Nm³/h and purities of 90-95% for further application.

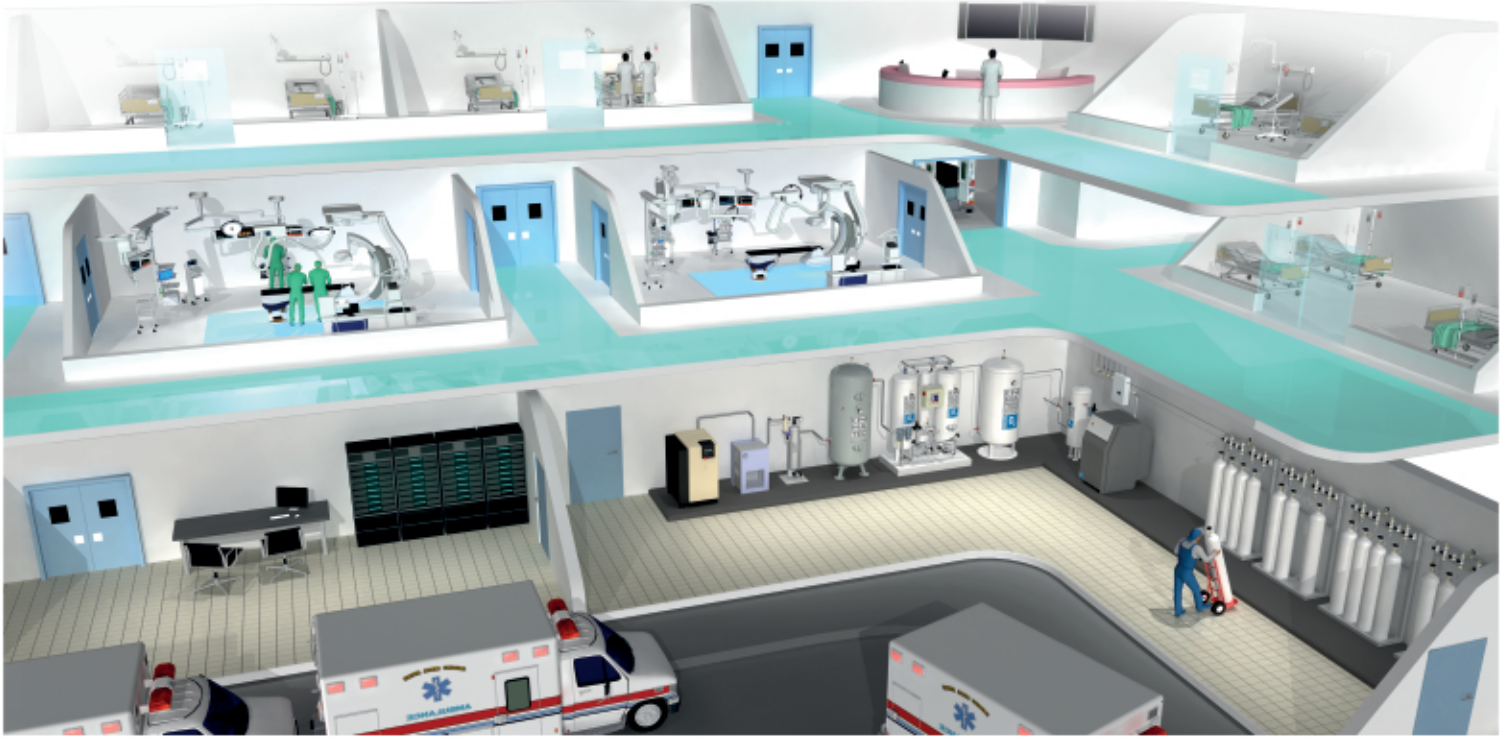


PLUG & PLAY OXYGEN GENERATORS

EXAMPLE OF A COMPLETE SYSTEM FOR A HOSPITAL



CROSS SECTION OF HOSPITAL O_2 SUPPLY



CONSUMPTION OF A HOSPITAL (SAMPLE)			TOTAL
100 hospital beds	46 l/h	2.76 Nm ³ /h	15.96 Nm ³ /h ≈PO 3250
2 intensive care beds	110 l/h	6.6 Nm ³ /h	
2 operation room	110 l/h	6.6 Nm ³ /h	
+ Bottle filling per 24 h. max filling pressure: 137 bar			
8 bottles	x 47.2 Liter	2.2 Nm ³ /h	18.1 Nm ³ /h ≈PO 3350



Shri Mata Vaishno Devi Narayana
Superspeciality Hospital
A unit of Narayana Health, Bangalore

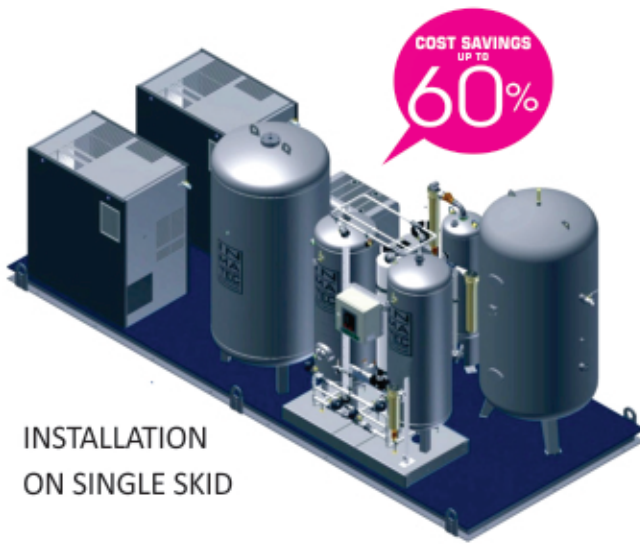




- NOC from Explosive department, annual renewal required
- Space requirement for storage of cylinders, bundles
- Continued order-and invoicing procedures
- Building construction for tank installation
- Logistic efforts
- Increased Co2 balance
- Dependency on pricing
- Quality control only for batches
- Hazardous goods transportation
- Highly Hazardous & Inflammable



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



INSTALLATION
ON SINGLE SKID

- » 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

Component		ISO 10083	United States USP XXII Oxygen 93 %	European Pharmacopeia Oxygen 93 %	Indian Pharmacopeia Oxygen 93 %	PECTHERM INMATEC
Oxygen v/v%	O2	> 90%	>90%< 96%	93 + 3 %	90%-96%	INMATEC 93 - 95 %
Carbon monoxide	Co2	< 5 ppm	5 ppm	5 ppm	<300 ppm	0.11 ppm
Carbon dioxide	CO	< 300 ppm	300 ppm	3 ppm	< 5 ppm	0.82 ppm
Water		<37 ppm	-	<67 ppm	<67 ppm (-50°C)	3.8 ppm

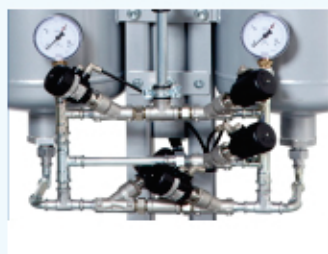
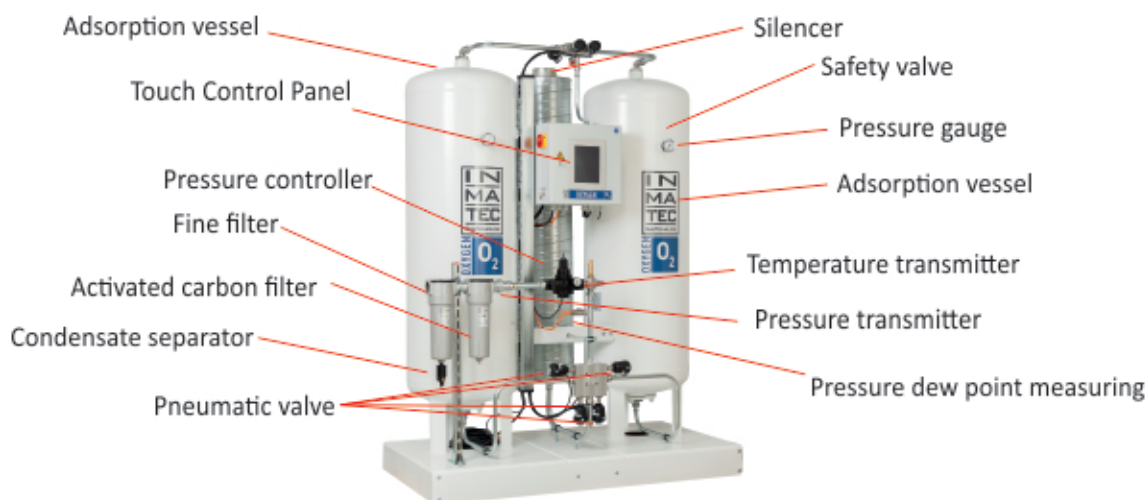


PLANT INSIDE AN ISO CONTAINER



LARGE INSTALLATION IN HOSPITAL

- » 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 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 smart phones and tables as remote control with full functionality of all control and monitoring features of the touch control panel.



- » 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

we can remotely monitor generators around the world to support our customers.



INMATEC GREEN TECHNOLOGY YOUR ADVANTAGES THROUGH ONSITE

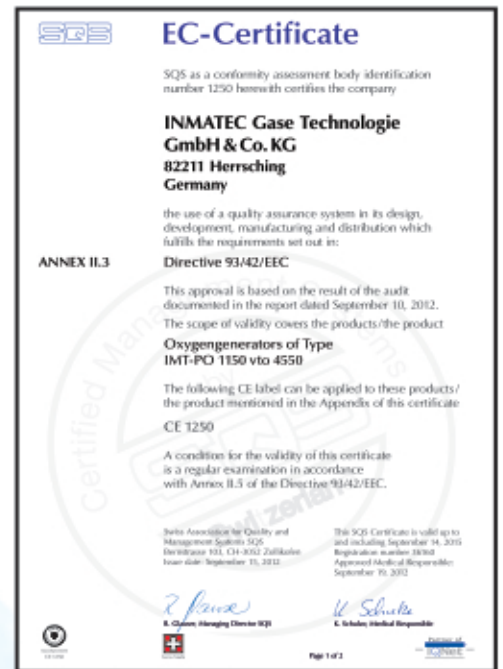


- Cost - effective with low operating costs
- O2 at anytime, in every quantity and directly onsite
- Sophisticated and reliable technology
- No hazardous materials and no risk of explosion
- Exact purity for every application
- No transports, 100% Co2 reduction, no environmental pollution
- No lease agreements as with bottles, packs and tank systems



COMPLIANCE :

- INMATEC is certified according to the Medical Device Quality Management System DIN ISO 13485:2008 for manufacturing of O2 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 O2 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 O2 Medical generators meet the requirements of DIN ISO 10083:2008-12 for the continuous monitoring of CO and Co2.
- INMATEC is certified according to the Quality Management System DIN ISO 9001:2008



Medical Devices Quality Management System
ISO 13485:2008 & ISO 10063:2008



Quality Management System
DIN ISO 9001:2008



ATEX



GERMANSCHER LLOYD



BUREAU VERITAS



BRITISH STANDARD



TÜV CERT



Lloyd's Register

In collaboration with



INMATEC
Gase Technologies
GmbH & Co. KG
GERMANY

www.inmatec.com



PECTHERM (PVT.) LIMITED

Registered Office :

31-32, Pheruman Building, G.T. Road, Ludhiana-141003. INDIA
Tel: 91-161-2543546 Fax: 5096924, Moblie : +91-98140-20359

Website : www.pectherm.com E-mail : office@pectherm.com

Regional Offices :

Delhi | Mumbai | Raipur | Ahmedabad | Visakhapatnam
Kolkata | Bangalore | Nagpur | Jaipur