



**Made in  
Germany**

# NITROBERG<sup>®</sup> | OXYBERG<sup>®</sup>

Oxygen and Nitrogen Generators



# PSA OXYGEN GENERATOR

## OXYBERG®

BERG GaseTech® GmbH PSA Oxygen technology produces Oxygen in a purity of 90% up to 95% and quantities of 1 - 280 Nm<sup>3</sup>/h.

### PERMANENT O<sub>2</sub> SUPPLY

#### PROCESS:

The OXYBERG® pressure swing adsorption process separates the Nitrogen molecules from Compressed air or the Oxygen molecules from Compressed air.

The pure Oxygen can now be used in a wide range of applications.

#### BENEFITS:

- Plug and Play, simple/constant oxygen supply
- Constant measurement of oxygen purity
- Savings from the very first minute
- Low-maintenance, compact design
- Longest Lifetime of High quality ZEOLITE
- Less Compressed air and Low energy cost

#### Compressed Air Specification

Temperature range: +5 to +40°C

Air quality: ISO 8573.1, Class 1.4.1

Operating pressure: 10 bar

#### The Complete Oxygen Plant, Skid Mounted

A) Compressed Air Station

B) Air treatment to ISO 8573-1 Class 1.4.1 (1.2.1)

C) Compressed Air Buffer Tank

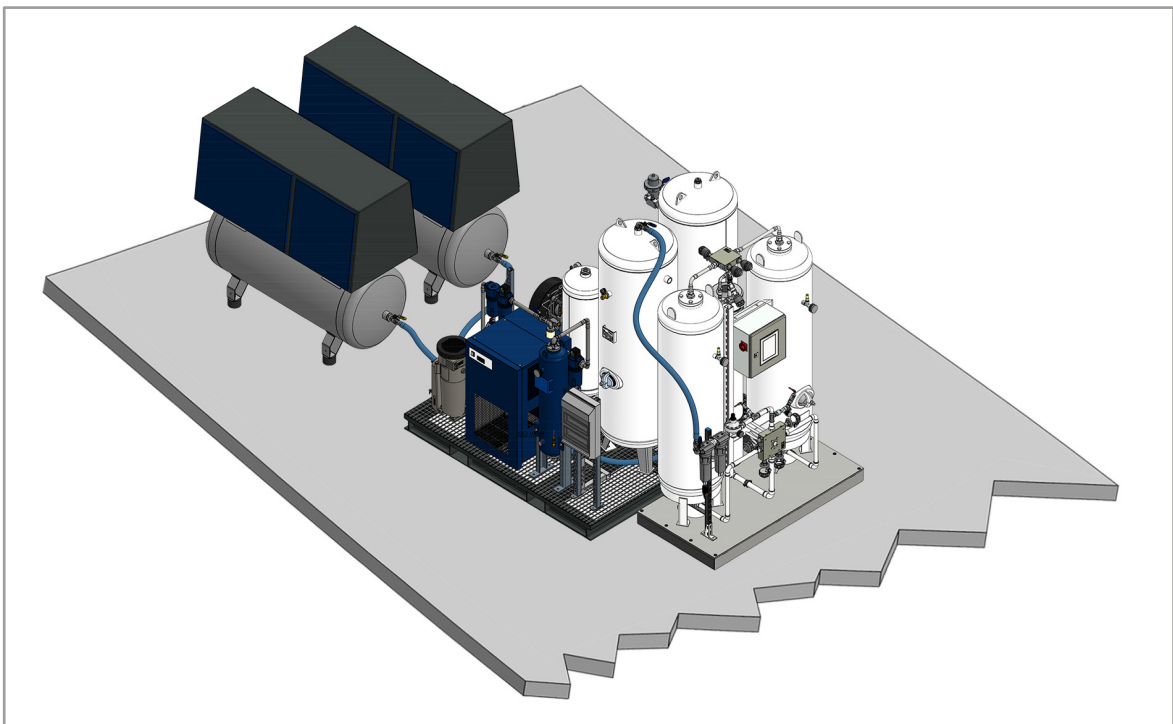
D) PSA Oxygen Generator, OXYBERG®

E) Product Oxygen Tank

F) Boosting Station / Cylinder Filling Station

#### Ambient Conditions

- Temperature range: +5°C to +40°C
- Electrical connection: 110-230 V/60-50 Hz
- Noise level: from 55 to max. 78 dB(A)
- Certified in accordance with DIN ISO 13485:2003 & in accordance with Pressure Equipment Directive 93/27/EC



# PSA OXYGEN GENERATOR

## PRODUCTION PRINCIPLE

The Oxygen generator consists of two separating vessels filled with molecular sieve absorbers (zeolite). When pure compressed air pressurizes a vessel, the nitrogen is retained by the molecular sieve and the Oxygen goes straight into the Oxygen buffer. As soon as the tank approaches Nitrogen saturation, the process switches to the second tank and the adsorbed Nitrogen in the first tank is released to the ambient air. The OXYBERG® series offers all the advantages of a fully integrated in-house production system.

## Product Specification

### Description

Twin column, heavy duty, medical Oxygen generator made to work 24/7 in demanding healthcare environments with load conditions of up to 100%.

### Column vessels

Twin vessels manufactured according to the Pressure Equipment Directive and with the stringent German Technically Supervisory Board [TÜV] approval. Vessels are powder coated and calculated for the demanding high load cycle.

### Adsorbent material

High quality, long-life molecular sieve ZEOLITE with industry leading energy air factors resulting in lowest possible differential pressure.

### Process valves

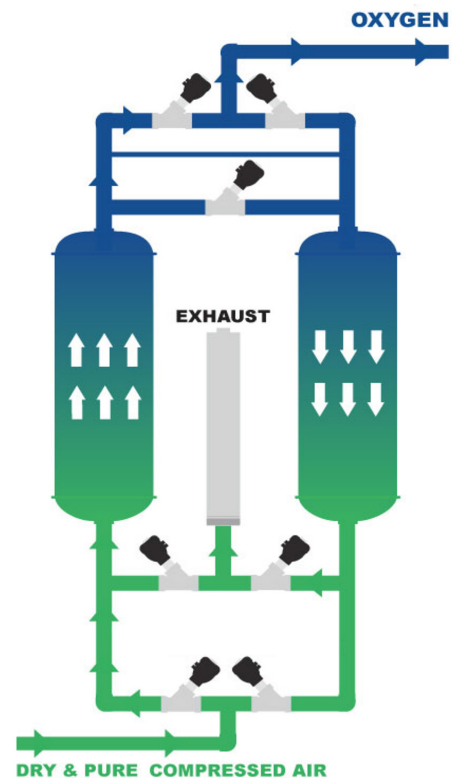
Angle seat pneumatic process valves with stainless steel body and piston stems are used which guarantee a very reliable operation in a long service life.

### Piping

All process piping is in stainless steel, press-fitted pipes for maximum durability and leak free operation.

### Instrumentation & Measurement

- Purity analyzer and sensor with Zirconium sensor
- Outlet pressure sensor – displays in HMI
- Pressure indicator on each column vessel
- Pressure indicator at inlet pressure regulator
- Pressure indicator at outlet pressure regulator
- Ready to connect with electro cable and plug in



## Control & Monitoring

Multifunctional color touch control panel with 4" or 7" HMI offering unique features and controllability is used as an industry leading, state of the art [HMI] Features Made by Siemens include:

- Automatic, Start Mode and Stop Button
- Display operating and measurement values - purity, outlet pressure, operating hours and all other connected measurement sensor values
- Values displayed in metric or imperial values
- Display of trends – all measurement values can be displayed as trend for 24 hours
- Alarm management – Audit trail of raised alarms, acknowledgement, deleted with time/date stamp and permanent alarm history
- Change of purities with a push of a button
- Access management with 3 hierarchy levels for access control
- Automatic service reminders for periodic maintenance
- Long term process data storage
- Automatic start option after power outage as required by ISO 10083

# APPLICATION FIELDS

## For Our PSA Oxygen Generator

### MEDICAL



Medical Oxygen generators, such as our OXYBERG® Generators, are essential for supplying hospitals with high-purity Oxygen.



Employing the principle of pressure swing adsorption, these generators efficiently extract Oxygen from the surrounding air. Unlike traditional external Oxygen cylinders or liquid Oxygen tanks, our PSA O<sub>2</sub> gas generators offer a safer and more cost-effective solution for medical Oxygen needs.

### GLASS & NEON FACTORY



PSA Oxygen generators play a vital role in the glass and neon manufacturing industry by providing a continuous and on-site source of



high-purity Oxygen. Their applications range from supporting high-temperature processes in glass manufacturing to various techniques involved in neon sign production. Using this item in this it has helped industries increase efficiency, and control over critical production processes, and is very cost-effective.

### METAL INDUSTRY



PSA Oxygen generators play a crucial role in various processes within the metal industry, contributing to metal cutting,



welding, steel production, heat treatment, powder production, surface treatment, annealing, and foundry operations. Their application enhances process efficiency, reduces costs, and ensures a reliable and on-site source of high-purity Oxygen for metal-related applications.

### DRINKING-WATER TREATMENT



Oxygen plays a vital role in water purification, which cannot be denied in any way and PSA Oxygen generators play a critical role in drinking



water treatment by providing a dependable and cost-effective source of Oxygen for various treatment processes, ultimately contributing to the production of safe and clean drinking water for communities around the world.

### ECOLOGY FISH FARMING



PSA Oxygen generators play a vital role in supporting the ecological integrity and sustainability of fish farming operations by ensuring



adequate Oxygen levels, promoting biological filtration, and reducing the environmental impact of Oxygen supplementation. They contribute to the overall health and productivity of aquaculture systems while reducing dependence on external resources.

### BIOGAS PLANTS



PSA Oxygen generators play a crucial role in various aspects of biogas plant operations, from enhancing anaerobic digestion to improving odor



control, wastewater treatment, and the upgrading of biogas for efficient utilization. Their application contributes to increased biogas production, improved gas quality, and overall process efficiency in the renewable energy and waste management sectors.

### MINING AND MINERAL PROCESSING



PSA Oxygen generators find widespread application in various processing industries, supporting critical processes such as oxidation reactions,



water treatment, glass and ceramics manufacturing, electronic and semiconductor fabrication, mining, metallurgy, and environmental monitoring. Their adaptability and efficiency make them valuable assets for ensuring a controlled and reliable supply of Oxygen in diverse processing applications.

### PHARMACEUTICAL



Overall, PSA Oxygen generators offer pharmaceutical companies a reliable, on-site source of high-purity oxygen, reducing



dependence on external suppliers and ensuring uninterrupted production processes. They contribute to the efficiency, cost-effectiveness, and quality control of pharmaceutical manufacturing operations.



# OXYGEN PLANT OXYBERG® Compact

## OXYBERG® Compact systems

The special OXYBERG® technology - Pressure Swing Adsorption (PSA) or pressure swing adsorption - offers innovative solutions and processes when it comes to Oxygen generation.

This reliable and cost-effective method of on-site Oxygen generation is primarily used in medical care (hospitals), pharmacy and water treatment.

The PSA technology and specially developed adsorbents (zeolites) separate the ambient air (oil-free compressed air) into its components Nitrogen and Oxygen. Oxygen is therefore available to you in delivery quantities of 1 - 280 Nm<sup>3</sup>/h and purity of 90 - 95% for further use.

## GENERATOR FOR MEDICAL O<sub>2</sub>

The unique advantages of the OXYBERG® Med series: Energy-optimized oxygen generation for medical facilities with guaranteed constant oxygen quality.

## European Pharmacopoeia & Directive 93/42/EEC

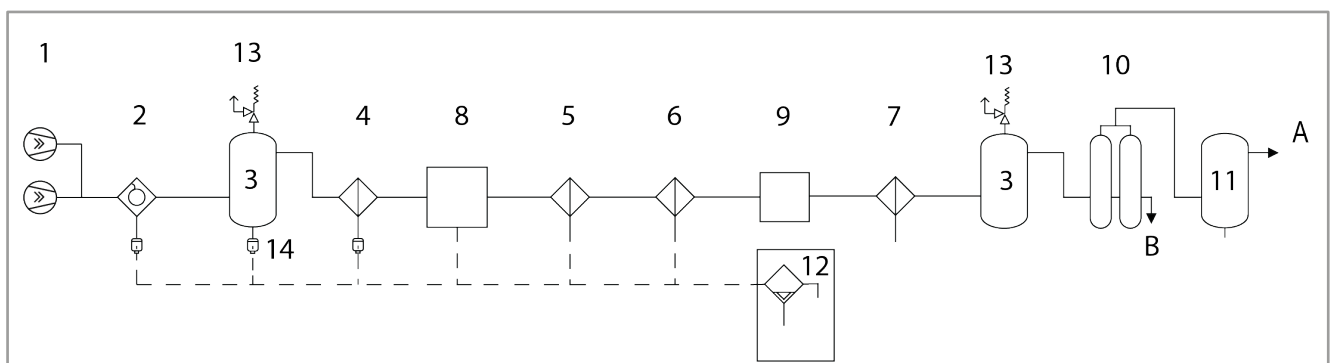
O<sub>2</sub> purity up to 95% ± 3% volume from 1 - 280 Nm<sup>3</sup>/h OXYBERG® Oxygen generators meet the standards of the European Pharmacopoeia (pharmacopoeia) 93% ± 3% for medical applications with an Oxygen purity of OXYBERG® = 95% according to the guidelines ISO 13485:2016 according to the guideline 93/42/EWG.

## ADVANTAGES:

- Customized solutions
- Standard systems in a compact design
- Automatic operation
- Mobile oxygen supply
- Digital Surveillance
- Ideal if there is no infrastructure
- Reduced operating costs
- Optimum availability
- Return on Invest in less than 36 months
- CO<sub>2</sub> / CO and O<sub>2</sub> measurements - optional

## O<sub>2</sub> Plant sample installation

1. Screw Compressors - Multi stage
  2. Water Separator
  3. Compressed air tanks
  4. Pre filter
  5. Fine filter
  6. Super fine filter
  7. Dust filter
  8. DRYBERG - Refrigeration/Adsorption Dryer
  9. Activated Carbon Tower
  10. OXYBERG® - PSA Oxygen Generator
  11. Compressed Oxygen tanks
  12. OWAMAT® - Oil / Water Separator
  13. Safety valves
  14. BEKOMAT®
- A. Oxygen  
B. Nitrogen- enriched air outlet





## Technical Data of PSA Oxygen Generator OXYBERG® - Capacity (Nm<sup>3</sup>/h)

Model	Oxygen Purity	90%	92%	93%	94%	95%
OXYBERG® 500	O <sub>2</sub> , Nm <sup>3</sup> /h	2.9	2.5	2.1	1.9	1.8
	Comp.air, Nm <sup>3</sup> /h	31.9	27.5	23.1	20.9	19.8
	Oxygen vessel	90	90	90	90	90
	Comp. air vessel	150	150	150	150	150
OXYBERG® 600	O <sub>2</sub> , Nm <sup>3</sup> /h	3.9	3.4	2.9	2.8	2.6
	Comp.air, Nm <sup>3</sup> /h	42.9	37.4	31.9	30.8	28.6
	Oxygen vessel	90	90	90	90	90
	Comp. air vessel	150	150	150	150	150
OXYBERG® 700	O <sub>2</sub> , Nm <sup>3</sup> /h	4.9	4.5	4.2	3.9	3.8
	Comp.air, Nm <sup>3</sup> /h	53.9	49.5	46.2	42.9	41.8
	Oxygen vessel	150	150	150	150	150
	Comp. air vessel	250	250	250	250	250
OXYBERG® 800	O <sub>2</sub> , Nm <sup>3</sup> /h	6.3	5.7	5.5	5.2	4.9
	Comp.air, Nm <sup>3</sup> /h	69.3	62.7	60.5	57.2	53.9
	Oxygen vessel	250	250	250	250	250
	Comp. air vessel	350	350	350	350	350
OXYBERG® 900	O <sub>2</sub> , Nm <sup>3</sup> /h	8.1	7.3	6.7	6.4	6.2
	Comp.air, Nm <sup>3</sup> /h	89.1	80.3	73.7	70.4	68.2
	Oxygen vessel	350	350	350	350	350
	Comp. air vessel	500	500	500	500	500
OXYBERG® 1000	O <sub>2</sub> , Nm <sup>3</sup> /h	10.6	9.4	9.1	8.5	8.1
	Comp.air, Nm <sup>3</sup> /h	116.6	103.4	100.1	93.5	89.1
	Oxygen vessel	500	500	500	500	500
	Comp. air vessel	750	750	750	750	750
OXYBERG® 1100	O <sub>2</sub> , Nm <sup>3</sup> /h	13.6	13.3	12.7	11.8	11.4
	Comp.air, Nm <sup>3</sup> /h	149.6	146.3	139.7	129.8	125.4
	Oxygen vessel	500	500	500	500	500
	Comp. air vessel	750	750	750	750	750
OXYBERG® 1200	O <sub>2</sub> , Nm <sup>3</sup> /h	15.7	13.8	14.2	13.6	12.9
	Comp.air, Nm <sup>3</sup> /h	146.7	146.6	146.5	143.0	141.9
	Oxygen vessel	750	750	750	750	750
	Comp. air vessel	1,000	1,000	1,000	1,000	1,000
OXYBERG® 1300	O <sub>2</sub> , Nm <sup>3</sup> /h	23.4	22.2	21.1	20.1	19.3
	Comp.air, Nm <sup>3</sup> /h	257.4	244.2	232.1	221.1	212.3
	Oxygen vessel	750	750	750	750	750
	Comp. air vessel	1,500	1,500	1,500	1,500	1,500
OXYBERG® 1400	O <sub>2</sub> , Nm <sup>3</sup> /h	32.5	31.9	30.2	28.9	27.6
	Comp.air, Nm <sup>3</sup> /h	357.5	350.9	332.2	317.9	303.6
	Oxygen vessel	1,000	1,000	1,000	1,000	1,000
	Comp. air vessel	2,000	2,000	2,000	2,000	2,000
OXYBERG® 1500	O <sub>2</sub> , Nm <sup>3</sup> /h	44.6	42.8	41.1	39.9	38.8
	Comp.air, Nm <sup>3</sup> /h	490.6	470.8	452.1	438.9	426.8
	Oxygen vessel	1,500	1,500	1,500	1,500	1,500
	Comp. air vessel	3,000	3,000	3,000	3,000	3,000
OXYBERG® 1600	O <sub>2</sub> , Nm <sup>3</sup> /h	53.4	51.4	49.3	47.4	46.2
	Comp.air, Nm <sup>3</sup> /h	587.4	565.4	542.3	521.4	508.2
	Oxygen vessel	2,000	2,000	2,000	2,000	2,000
	Comp. air vessel	4,000	4,000	4,000	4,000	4,000
OXYBERG® 1700	O <sub>2</sub> , Nm <sup>3</sup> /h	64.7	63.4	61.6	60.3	58.8
	Comp.air, Nm <sup>3</sup> /h	711.7	697.4	677.6	663.3	646.8
	Oxygen vessel	2,000	2,000	2,000	2,000	2,000
	Comp. air vessel	4,000	4,000	4,000	4,000	4,000
OXYBERG® 1800	O <sub>2</sub> , Nm <sup>3</sup> /h	89.1	85.2	82.2	79.7	77.1
	Comp.air, Nm <sup>3</sup> /h	980.1	937.2	904.2	876.7	848.1
	Oxygen vessel	3,000	3,000	3,000	3,000	3,000
	Comp. air vessel	5,000	5,000	5,000	5,000	5,000
OXYBERG® 1900	O <sub>2</sub> , Nm <sup>3</sup> /h	105.4	101.7	97.8	93.8	91.4
	Comp.air, Nm <sup>3</sup> /h	1,159.4	1,118.7	1,075.8	1,031.8	1,005.4
	Oxygen vessel	4,000	4,000	4,000	4,000	4,000
	Comp. air vessel	6,000	6,000	6,000	6,000	6,000
OXYBERG® 2000	O <sub>2</sub> , Nm <sup>3</sup> /h	129.6	126.9	123.4	120.7	117.4
	Comp.air, Nm <sup>3</sup> /h	1,425.6	1,395.9	1,357.4	1,327.7	1,291.4
	Oxygen vessel	5,000	5,000	5,000	5,000	5,000
	Comp. air vessel	8,000	8,000	8,000	8,000	8,000

\*All values apply at 7 bar inlet pressure and 20°C ambient temperature.

\*If the bigger size or customized plant is needed, please contact us.

# PSA NITROGEN GENERATOR

## NITROBERG®

BERG GaseTech® GmbH PSA Nitrogen technology produces a purity of 97% up to 99.9999% and quantities of 0.9 - 2200 Nm³/h.

### PERMANENT N<sub>2</sub> SUPPLY

#### PROCESS:

The NITROBERG® pressure swing adsorption process/ Pressure separates the nitrogen molecules from Compressed air or the Oxygen molecules from Compressed air.

#### BENEFITS:

- Plug and Play, constant nitrogen supply
- Constant measurement of nitrogen purity
- Savings from the very first minute
- Low-maintenance, compact design
- Ultra Pure N<sub>2</sub> => up to 99.9999% (1ppm O<sub>2</sub>)
- Longest lifetime of High quality CMS

#### Compressed air specification

Temperature range: +5 to +40°C  
 Air quality: ISO 8573.1, Class 1.4.1  
 Operation pressure: 10 bar

#### The Complete Nitrogen plant, Skid mounted

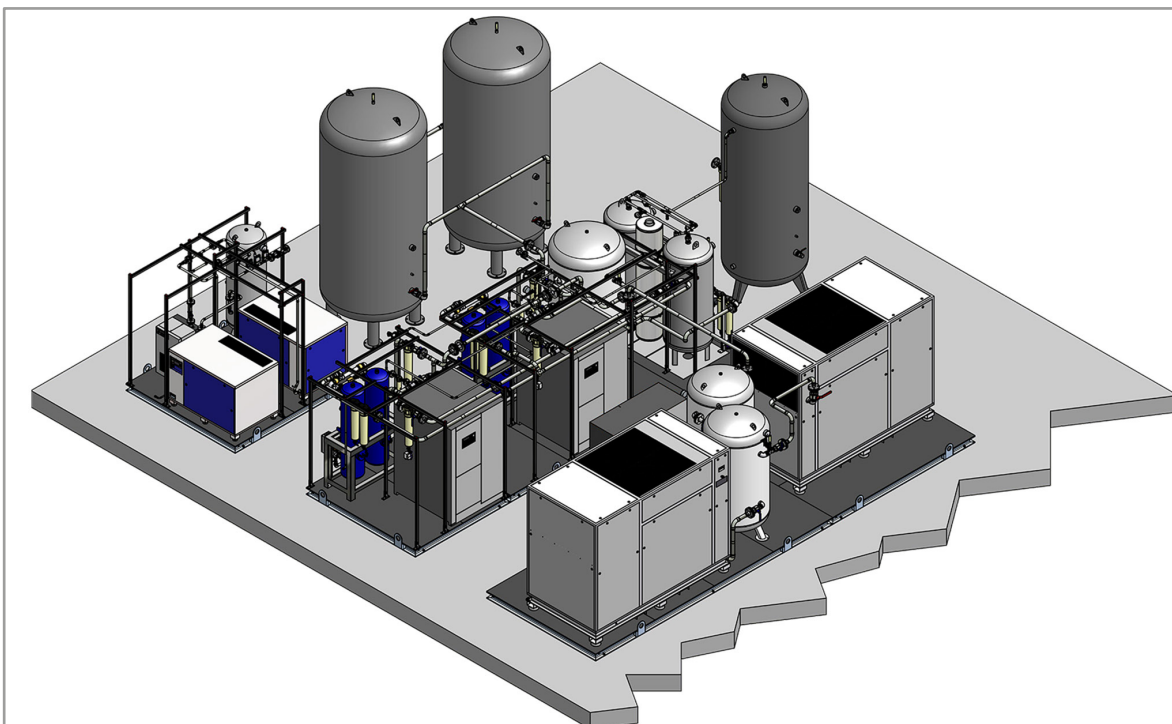
- A) Compressed Air Station
- B) Air treatment to ISO 8573-1 Class 1.2.1
- C) Compressed Air Buffer Tank
- D) PSA Nitrogen Generator, NITROBERG®
- E) Product Nitrogen Tank
- F) Boosting Station / Cylinder Filling Station

#### Ambient conditions

- Temperature range: +5°C to +40°C
- Electrical connection: 110-230 V/60-50 Hz
- Noise level: from 55 to max. 78 dB(A)
- Certified in accordance with ISO 9001:2008 and in accordance with Pressure Equipment Directive 93/27/EC

#### Calculation of the compressed air requirements

Nitrogen content (%)	97%	98%	99%	99.50%	99.90%	99.99%	99.999%
Air factor	2.1	2.3	2.5	2.9	3.9	5.5	6.6





# PSA NITROGEN GENERATOR

## PRODUCTION PRINCIPLE

The Nitrogen generator is also composed of two separation vessels, but is filled with carbon molecular sieve (CMS) Oxygen is adsorbed in molecular sieve and Nitrogen is passing through CMS to the Nitrogen buffer. As soon as the PSA tank approaches oxygen saturation, the process switches to the second PSA tank and the adsorbed Oxygen in the first PSA tank is released to the ambient air. The NITROBERG® series offers all advantages of a fully integrated in-house production system.

## Product Specification

### Description

Twin column, heavy duty,  
Nitrogen generator made to work 24/7 in demanding  
with load conditions of up to 100%.

### Column vessels

Twin vessels manufactured according to the Pressure

### Equipment

Directive and with the stringent German Technically  
Supervisory Board [TÜV] approval.

### Adsorbent material

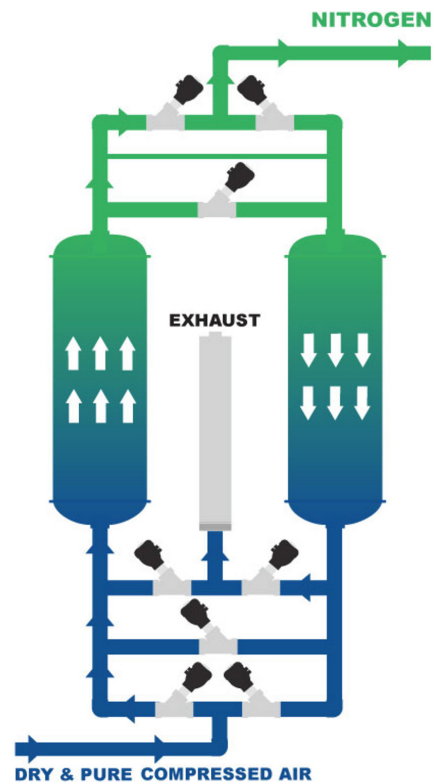
High quality, long-life Carbon molecular sieve CMS with  
industry leading energy air factors resulting in lowest  
possible differential pressure as well as most economic  
air to Oxygen ratios. Our molecular sieve has an expected  
lifetime of more than 10 years and is not classed as a  
consumable exchange

### Piping

All process piping is in galvanized steel, or stainless steel  
press-fitted pipes type Viga for maximum durability and  
leak free operation.

### Instrumentation & Measurement

- Purity analyzer and sensor with Zirconium sensor for long lifetime and high accuracy displays in HMI
- Outlet pressure sensor – displays in HMI
- Pressure indicator on each column vessel
- Pressure indicator at inlet pressure regulator
- Pressure indicator at outlet pressure regulator
- Ready to connect with electro cable and plug in



### Control & Monitoring

Multifunctional, color touch control panel with Siemens 7“  
HMI offering unique features and controllability is used  
as an industry leading, state of the art Human Machine  
Interface [HMI] Features include:

- Automatic, Continuous Mode Start & Stop Button
- Display operating and measurement values - purity, outlet pressure, operating hours and all other connected measurement sensor values
- Values displayed in metric or imperial values
- Display of trends – all measurement values can be displayed as trend
- Alarm management – Audit trail of raised alarms, acknowledgement, deleted with time/date stamp and permanent alarm history
- Change of purities with a push of a button
- Access management with 3 hierarchy levels for access control
- Automatic service reminders for periodic maintenance
- Long term process data storage

# APPLICATION FIELDS GENERATOR

## For Our PSA Nitrogen Generator

### FOOD AND BEVERAGE



PSA Nitrogen generators play a crucial role in the food and beverage industry by providing a reliable and on-site source of high-purity Nitrogen. Their



applications range from preserving the freshness of packaged foods to enhancing the quality of beverages and ingredients in various food processing operations. The use of PSA Nitrogen generators contributes to improved product quality, extended shelf life, and overall efficiency in food and beverage manufacturing.

### OIL AND GAS INDUSTRY



PSA Nitrogen generators play a crucial role in various aspects of the oil and gas industry, contributing to drilling operations, enhanced



oil recovery, pipeline maintenance, gas storage, refining processes, shutdown operations, and more. Their ability to provide a continuous and on-site supply of high-purity Nitrogen enhances safety, efficiency, and cost-effectiveness across a range of applications in the oil and gas sector.

### MANUFACTURING PLASTIC INDUSTRY



PSA Nitrogen generators play a vital role in various applications within the plastic manufacturing industry, contributing to the production,

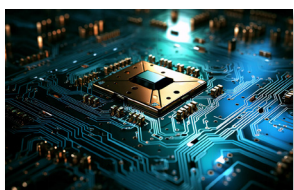


molding, extrusion, and recycling of plastic materials. Their use in creating controlled atmospheres, preventing oxidation, and facilitating purging processes enhances the efficiency, quality, and sustainability of plastic manufacturing operations.

### ELECTRONICS AND COMMUNICATION



PSA Nitrogen generators are integral to various applications within the electronics and communication industry, contributing to the production,



assembly, testing, and protection of electronic components. Their use in creating controlled atmospheres, preventing oxidation, and controlling moisture levels enhances the reliability, quality, and performance of electronic devices and components.

### LASER CUTTING INDUSTRY



PSA Nitrogen generators are crucial in the laser cutting industry for providing a continuous and controlled supply of high-purity Nitrogen.



Their applications in laser cutting contribute to improved cut quality, increased efficiency, and a safer working environment. Nitrogen assists in achieving precise cuts, preventing oxidation, and enhancing the overall performance of laser cutting processes across a variety of materials.

### VEGETABLE OILS



PSA Nitrogen generators are integral to various stages of vegetable oil production, processing, and storage. They play a crucial role in



preventing oxidation, extending shelf life, and enhancing the overall quality of vegetable oils. The versatility of PSA Nitrogen generators makes them a valuable asset in the vegetable oil industry for creating controlled atmospheres in different processes.

### CHEMICALS INDUSTRY



PSA Nitrogen generators play a crucial role in various applications within the chemicals industry, ensuring a reliable and on-site source



of high-purity Nitrogen. Their use in inerting, blanketing, purging, and other processes contributes to the safety, efficiency, and quality of chemical manufacturing and processing operations.

### PHARMACEUTICAL



PSA Nitrogen generators play a crucial role in various applications within the pharmaceutical industry, ensuring a reliable and



on-site source of high-purity nitrogen. Their use in inerting, blanketing, purging, and analytical processes contributes to the safety, efficiency, and quality of pharmaceutical manufacturing, storage, and quality control operations.

# NITROGEN PLANT NITROBERG® Package

## NITROBERG® Package Systems

NITROBERG® Compact systems produce nitrogen with a purity of up to 5.0 or 6.0 with even high pressure booster. All components are combined on a compact platform to form a plug & play system. This ensures easier transport, immediate installation and immediate start-up on site with extremely low power & compressed air consumption.

## PROCEEDINGS

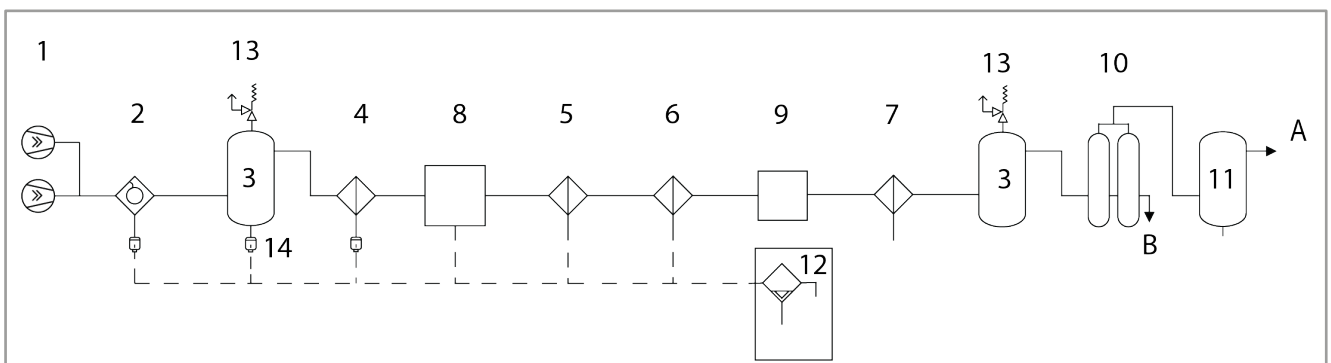
The interaction of the NITROBERG® generators with the energy-saving air distribution system maximizes the efficiency of nitrogen production. The Nitrogen from the NITROBERG® system will be cleaned from O<sub>2</sub> and the N<sub>2</sub> purity is increased to up to 99.9999% Thanks to our innovative system, you can produce ultra-pure nitrogen with significantly smaller air compressors!

## ADVANTAGES:

- Plug & Play system - immediately operational
- Increased efficiency, low-maintenance design
- High quality, worldwide service
- Small footprint, easy handling
- Innovated air distribution system.
- **Automatic blending Air factor 2.9 at 99.5%** (1 Nm<sup>3</sup> N<sub>2</sub> = 2.9 Nm<sup>3</sup> compressed air )
- Constant measurement of N<sub>2</sub> purity and the outlet pressure
- Trend display, recipe management
- Data backup, multilingualism Remote Control, Query & Control, E-mail alert, Industry 4.0 - optional
- Protect the machine from moisture with a PDP sensor for inlet compressed air - optional

## N<sub>2</sub> Plant sample installation

1. Screw Compressor (Multi stage)
  2. Water Separator
  3. Compressed air tanks
  4. Pre filter
  5. Fine filter
  6. Super fine filter
  7. Dust filter
  8. DRYBERG - Refrigeration/Adsorption Dryer
  9. Activated Carbon Tower
  10. NITROBERG® - PSA Nitrogen Generator
  11. Compressed Nitrogen tanks
  12. OWAMAT® - Oil / Water Separator
  13. Safety valves
  14. BEKOMAT®
- A. Nitrogen  
B. Oxygen- enriched air outlet









Technical Data of PSA Nitrogen Generator NITROBERG® - Capacity (Nm <sup>3</sup> /h)									
Model	Nitrogen Purity Quality grade Residual O <sub>2</sub> (PPM)	97%	98%	99%	99.5%	99.9%	99.99%	99.995%	99.999%
NITROBERG® 500	N <sub>2</sub> , Nm <sup>3</sup> /h	17.3	14.9	12.6	9.2	5.1	2.8	2.1	1.4
	Comp.air, Nm <sup>3</sup> /h	39.8	34.3	32.8	26.7	18.4	14.3	12.0	9.7
	Nitrogen vessel	90	90	90	90	90	90	90	90
	Comp. air vessel	150	150	150	150	150	150	150	150
NITROBERG® 600	N <sub>2</sub> , Nm <sup>3</sup> /h	25.9	22.6	18.1	13.4	7.2	3.9	2.9	2.1
	Comp.air, Nm <sup>3</sup> /h	59.6	52.0	47.1	38.9	25.9	19.9	16.5	14.5
	Nitrogen vessel	90	90	90	90	90	90	90	90
	Comp. air vessel	150	150	150	150	150	150	150	150
NITROBERG® 700	N <sub>2</sub> , Nm <sup>3</sup> /h	37.3	33.6	27.3	20.8	11.6	6.1	4.5	3.1
	Comp.air, Nm <sup>3</sup> /h	85.8	77.3	71.0	60.3	41.8	31.1	25.7	21.4
	Nitrogen vessel	150	150	150	150	150	150	150	150
	Comp. air vessel	250	250	250	250	250	250	250	250
NITROBERG® 800	N <sub>2</sub> , Nm <sup>3</sup> /h	49.6	44.6	36.3	27.6	15.4	8.2	5.9	4.1
	Comp.air, Nm <sup>3</sup> /h	114.1	102.6	94.4	80.0	55.4	41.8	33.6	28.3
	Nitrogen vessel	150	150	150	150	150	150	150	150
	Comp. air vessel	250	250	250	250	250	250	250	250
NITROBERG® 900	N <sub>2</sub> , Nm <sup>3</sup> /h	59.3	53.3	46.1	37.4	23.0	11.6	8.7	5.7
	Comp.air, Nm <sup>3</sup> /h	136.4	122.6	119.9	108.5	82.8	59.2	49.6	39.3
	Nitrogen vessel	350	350	350	350	250	250	250	250
	Comp. air vessel	750	750	750	750	500	500	500	500
NITROBERG® 1000	N <sub>2</sub> , Nm <sup>3</sup> /h	83.2	75.2	63.4	51.5	37.2	23.4	16.6	10.6
	Comp.air, Nm <sup>3</sup> /h	191.4	173.0	164.8	149.4	122.8	110.0	86.3	67.8
	Nitrogen vessel	750	750	750	750	500	500	500	500
	Comp. air vessel	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
NITROBERG® 1100	N <sub>2</sub> , Nm <sup>3</sup> /h	115.8	97.2	79.2	67.3	47.7	27.6	20.8	14.1
	Comp.air, Nm <sup>3</sup> /h	266.3	223.6	205.9	195.2	157.4	129.7	108.2	90.2
	Nitrogen vessel	750	750	750	750	750	750	750	750
	Comp. air vessel	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
NITROBERG® 1200	N <sub>2</sub> , Nm <sup>3</sup> /h	139.9	127.8	107.7	87.5	63.2	39.6	28.2	18.1
	Comp.air, Nm <sup>3</sup> /h	321.8	293.9	280.0	253.8	208.6	186.1	146.6	115.8
	Nitrogen vessel	750	750	750	750	750	750	750	750
	Comp. air vessel	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
NITROBERG® 1300	N <sub>2</sub> , Nm <sup>3</sup> /h	212.9	186.1	141.6	118.9	89.5	50.0	38.1	26.2
	Comp.air, Nm <sup>3</sup> /h	489.7	428.0	368.2	344.8	295.4	235.0	198.1	167.7
	Nitrogen vessel	1,500	1,500	1,500	1,500	1,000	1,000	1,000	1,000
	Comp. air vessel	2,000	2,000	2,000	2,000	1,500	1,500	1,500	1,500
NITROBERG® 1400	N <sub>2</sub> , Nm <sup>3</sup> /h	304.9	267.3	209.9	181.7	126.7	73.4	55.4	37.6
	Comp.air, Nm <sup>3</sup> /h	701.3	614.8	545.7	526.9	418.1	345.0	288.1	240.6
	Nitrogen vessel	2,000	2,000	2,000	2,000	1,500	1,500	1,500	1,500
	Comp. air vessel	3,000	3,000	3,000	3,000	2,000	2,000	2,000	2,000
NITROBERG® 1500	N <sub>2</sub> , Nm <sup>3</sup> /h	367.3	319.8	239.6	198.9	149.5	88.7	66.9	45.8
	Comp.air, Nm <sup>3</sup> /h	844.8	735.5	623.0	576.8	493.4	416.9	347.9	293.1
	Nitrogen vessel	3,000	3,000	3,000	3,000	2,000	2,000	2,000	2,000
	Comp. air vessel	4,000	4,000	4,000	4,000	3,000	3,000	3,000	3,000
NITROBERG® 1600	N <sub>2</sub> , Nm <sup>3</sup> /h	441.2	382.9	287.5	238.6	179.6	106.5	81.1	55.1
	Comp.air, Nm <sup>3</sup> /h	1,014.8	880.7	747.5	691.9	592.7	500.6	421.7	352.6
	Nitrogen vessel	4,000	4,000	4,000	4,000	3,000	3,000	3,000	3,000
	Comp. air vessel	6,000	6,000	6,000	6,000	4,000	4,000	4,000	4,000
NITROBERG® 1700	N <sub>2</sub> , Nm <sup>3</sup> /h	536.8	462.4	346.5	288.2	224.6	128.4	94.9	64.4
	Comp.air, Nm <sup>3</sup> /h	1,234.6	1,063.5	900.9	835.8	741.2	603.5	493.5	412.2
	Nitrogen vessel	4,000	4,000	4,000	4,000	3,000	3,000	3,000	3,000
	Comp. air vessel	6,000	6,000	6,000	6,000	4,000	4,000	4,000	4,000
NITROBERG® 1800	N <sub>2</sub> , Nm <sup>3</sup> /h	694.9	606.8	459.6	378.8	295.8	167.2	122.6	85.1
	Comp.air, Nm <sup>3</sup> /h	1,598.3	1,395.6	1,195.0	1,098.5	976.1	785.8	637.5	544.6
	Nitrogen vessel	5,000	5,000	5,000	5,000	3,000	3,000	3,000	3,000
	Comp. air vessel	8,000	8,000	8,000	8,000	6,000	6,000	6,000	6,000
NITROBERG® 1900	N <sub>2</sub> , Nm <sup>3</sup> /h	894.6	777.4	575.7	478.6	359.7	213.8	161.6	109.8
	Comp.air, Nm <sup>3</sup> /h	2,057.6	1,788.0	1,496.8	1,387.9	1,187.0	1,004.9	840.3	702.7
	Nitrogen vessel	6,000	6,000	6,000	6,000	4,000	4,000	4,000	4,000
	Comp. air vessel	9,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000
NITROBERG® 2000	N <sub>2</sub> , Nm <sup>3</sup> /h	1,057.7	921.1	689.4	572.8	435.3	259.8	192.6	133.6
	Comp.air, Nm <sup>3</sup> /h	2,432.7	2,118.5	1,792.4	1,661.1	1,436.5	1,221.1	1,001.5	855.0
	Nitrogen vessel	6,000	6,000	6,000	6,000	4,000	4,000	4,000	4,000
	Comp. air vessel	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000

\*All values apply at 7 bar inlet pressure and 20°C ambient temperature.

\*If the bigger size or customized plant is needed, please contact us.



DRYBERG® AD

OXYBERG®

OXYBERG® O<sub>2</sub>

OXYBERG®

O<sub>2</sub>

# SPECIAL PLANT

## BERG GaseTech® GmbH SPECIAL PLANT

All platform concepts reflect our definition of “solution engineering”.

In each of our projects, our competent team is committed to achieving optimal results and providing high-performance services.

### SKID Engineering

#### ONSITE N<sub>2</sub> and O<sub>2</sub> Plant

Self-generated N<sub>2</sub> and O<sub>2</sub> directly ONSITE.

The Possible Feature and Engineering option:

STAINLESS STEEL DESIGN

EX-PROTECTION / ATEX-DESIGN

IP 66 / ASME / MARINE DESIGN / BRITISH STANDARD

BACK-UP-SYSTEM

PRESSURE BOOSTER UP TO 1000 BAR

REMOTE MONITORING BOX / INDUSTRY 4.0

CONTAINER REALISATION

PLUG AND PLAY

### CONTAINER Engineering

#### ONSITE N<sub>2</sub> and O<sub>2</sub> Plant

Self-generated N<sub>2</sub> and O<sub>2</sub> directly ONSITE.

we supply a full feature complete and flexible system with compressed air technology , N<sub>2</sub> or O<sub>2</sub> generation, frequency control, heat recovery, control system and visualization, including a service alarm modem.

our CONTAINER solution can be set up anywhere ON-SITE according to the customer's wishes. As a rule, no installation or building permit is required.



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**N<sub>2</sub>**

Plug and play N<sub>2</sub> package to produce high purity 99.999% low flow N<sub>2</sub> for use in a university laboratory in Turkey, made in Germany

**JORDAN**

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