



# OXYSWING

## MODULAR PSA OXYGEN GENERATOR

Up to 95% Gas Purity



- *Patented PSA Process*
- *High Efficiency*
- *Compact & Flexible*

NOVAIR presents the new generation of OXYSWING® modular PSA generators. OXYSWING® is the result of years of research and development within NOXERIOR from NOVAIR group, offering the highest standards in terms of efficiency, flexibility and reliability:

- Unprecedented energy efficiency
- Increased purity stability
- Instant optimal working conditions
- Easy instruments upgrade
- The generators can produce oxygen up to 95 % purity.

## Siemens PLC Controller



Allows the monitoring / remote control of the main process parameters and displays status messages such as gas purity, flow rate, total gas flow, total functioning hours and maintenance alerts.

Ergonomic design, for a minimum footprint

OXYSWING Modular PSA oxygen generators can easily be upgraded at any time by simply adding modules.

The smallest Master unit OS - 8 can accommodate up to 5 additional modules creating the largest capacity model OS - 48. There are a total of 6 model sizes available and the modules may also be removed to reduce capacity as required.



Example illustration shows an OS - 8 Master model unit which includes one module and by adding 3 additional modules it creates an OS - 32 Master model unit.



NOXERIOR  
GAS  
SYSTEMS



7" HMI for real time purity monitoring and automatic & unattended operation



Instrumentation inputs and outputs



High quality oxygen analyser with zirconium oxide measuring cell that does not expire and does not require any replacement or calibration.



Detail of modular PSA aluminum banks, based on single modules concept.

Slave Banks can also be added, consisting of a second PSA oxygen generator, without any PLC and power supply. Each Slave Bank gets its power and control signals from the Master unit through a single cable connection.

One OXYSWING® PSA oxygen generator can control up to three Slave Banks in parallel.

Single Slave Bank - 100% increase in capacity



Double Slave Bank - 200% increase in capacity



Triple Slave Bank - 300% increase in capacity



## First class components

Your OXYSWING® generator must always perform and that is why we utilize first class components like stainless steel process piping, valves and regulators, as well as a heavy duty PLC.

## FlatFlow® technology

Allowing a uniform distribution of gas flow over the entire molecular sieve; this patented technology makes it possible to develop a compact, highly efficient and truly flexible PSA generator for the production of oxygen.

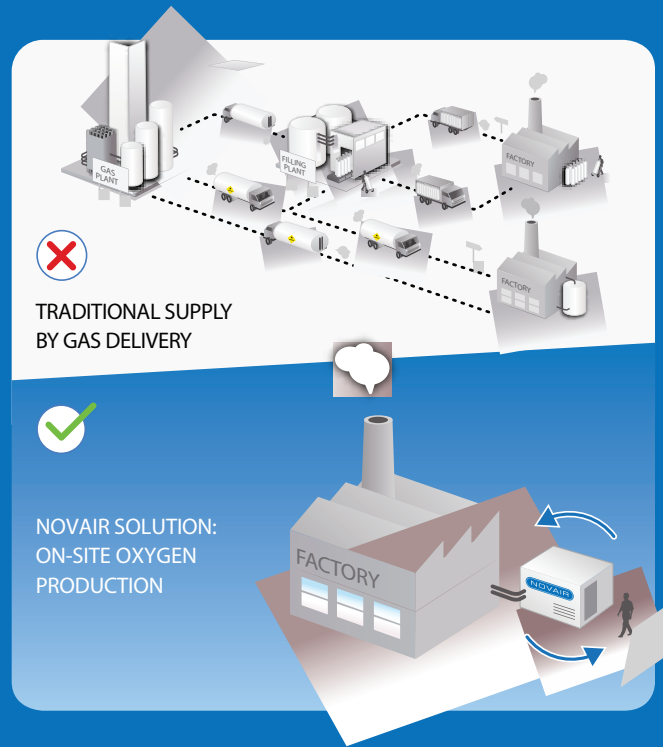
## Certified quality

A reliable, safe and stable oxygen production are essential features of OXYSWING® generators. They comply with the European Pressure Equipment Directive 2014/68 EU. For food applications, we can provide food grade certificates upon request.

## Why produce oxygen on-site?

### Benefits:

- Oxygen available 24/7: continuous production
  - Guaranteed purity: continuous analysis
  - Full safety
  - Proven savings
  - No more logistic constraints
- Instant production on-demand: no more supply chain failure
- Eco-friendly solution: zero delivery & zero emission of pollutants



## Patented Modular PSA Technology

OXYSWING® modular PSA generators implement a unique Pressure Swing Adsorption technology. Unlike twin-tower standard systems, OXYSWING® generators feature multiple modules of molecular sieve, each implementing an optimized patented PSA process.

### Modular PSA unique features:

- **Unlimited flexibility:** production capacity can be easily adjusted directly on site without any skilled personnel
- **Compact dimensions:** for installations even in small spaces of your production facility
- Application of **non-corroding materials** like aluminum and stainless steel, for all process components
- **Easy fleet management:** all OXYSWING® models feature the same components, allowing a limited spare part management and easy maintenance

## OXYSWING - Metric Capacity

### Oxygen Product Flow - m3/hour - Oxygen Content

| Oxygen Content           | 90%  | 93%  | 95%  | Output Pressure |
|--------------------------|------|------|------|-----------------|
| <b>OS-8</b> - 1 module   | 2.7  | 2.7  | 2.6  | 6 bar           |
| <b>OS-16</b> - 2 modules | 5.6  | 5.4  | 5.3  | 6 bar           |
| <b>OS-24</b> - 3 modules | 8.4  | 8.0  | 7.9  | 6 bar           |
| <b>OS-32</b> - 4 modules | 10.9 | 10.6 | 10   | 6 bar           |
| <b>OS-40</b> - 5 modules | 13.6 | 13.3 | 13.1 | 6 bar           |
| <b>OS-48</b> - 6 modules | 16.2 | 15.7 | 15.5 | 6 bar           |

## OXYSWING Master Unit: Dimensions and Weights

| OXYSWING ® PSA generator | Dimensions L x W x H | Weight kg |
|--------------------------|----------------------|-----------|
| <b>OS-8</b>              | 536 x 895 x 1750 mm  | 350       |
| <b>OS-16</b>             | 536 x 1095 x 1750 mm | 500       |
| <b>OS-24</b>             | 536 x 1365 x 1750 mm | 700       |
| <b>OS-32</b>             | 536 x 1630 x 1750 mm | 850       |
| <b>OS-40</b>             | 536 x 1895 x 1750 mm | 1050      |
| <b>OS-48</b>             | 536 x 2167 x 1750 mm | 1200      |

## OXYSWING Slave Unit: Dimensions and Weights

| OXYSWING ® PSA Slave | Dimensions L x W x H | Weight kg |
|----------------------|----------------------|-----------|
| <b>OS-16E</b>        | 536 x 1095 x 1530 mm | 452       |
| <b>OS-24E</b>        | 536 x 1363 x 1530 mm | 652       |
| <b>OS-32E</b>        | 536 x 1630 x 1530 mm | 794       |
| <b>OS-40E</b>        | 536 x 1900 x 1530 mm | 998       |
| <b>OS-48E</b>        | 536 x 2170 x 1530 mm | 1152      |