



## OXYGEN GENERATOR PREMIUM 400

Medical oxygen at 95% +/- 1%

Designed for hospitals with surgical activities and intensive care units, Premium oxygen generators guarantee a high oxygen concentration and an exceptional stability. They integrate advanced features of oxygen quality analysis, control and remote monitoring.

### Key features :

- High and stable oxygen concentration
- Fully automatic operation 24h/24
- Medical Device CE Class IIb
- Touch screen control panel
- Remotely manageable

### Designed for :

- Hospitals and clinics
- Medical gas network supply
- Replacement of liquid oxygen storage tanks and cylinders



# Premium 400

Oxygen generator 95% +/- 1%

## Technology & Design

Premium oxygen generators by Oxyplus Technologies are based on the Pressure Swing Adsorption (PSA) process. This technology is a static separation of air gases through a specific molecular sieve capable to adsorb nitrogen under pressure. Oxyplus Technologies R&D has optimized the process to obtain an oxygen concentration particularly stable and exceeding the highest quality standards.

Designed for a simple and quick installation, they include:

- 2 PSA sieve beds
- 1 monitoring system with HD color touch screen
- 1 oxygen receiver
- 2 air inlet filters 0.01 mg/m<sup>3</sup>
- 1 oxygen outlet filter

## Medical quality

Premium oxygen generators are CE marked as Medical Devices, class IIb and comply with all medical oxygen standards and regulations: ISO 10083, ISO 7396-1, Oxygen 93% Monograph of European and United States Pharmacopeias, HTM 02-01.



 **VISIO<sub>2</sub>® control panel**

## Intelligent control

VisiO<sub>2</sub> is an advanced control device which automatically manages and monitors the oxygen generator operation. It features a HD color touch screen displaying the production parameters and providing a diagnostic tool in case of default. VisiO<sub>2</sub> capabilities include:

- Real time curve drawing,
- Alarms management and archiving,
- Remote alarm transfer
- Automatic permutation for installations including two oxygen generators.

With its recording capacities, VisiO<sub>2</sub> provides healthcare facilities a complete traceability and continuous quality control of the oxygen produced.

## Available options

- Electromagnetic / Paramagnetic / Zirconium Oxygen Analyzer
- CO/CO<sub>2</sub>, dew point, NO/NO<sub>2</sub>, SO<sub>2</sub> analyzer - Pharmagas
- Measure of the oxygen flow consumed by the healthcare facility
- High pressure cylinder filling system
- 10 bar outlet pressure booster
- Remote control through internet
- Alarms sent by SMS
- Turnkey container, cabin or skid system
- Medical air and vacuum products
- Distribution and network accessories
- Data recording on external memory card
- RS 232 -RS 485 Modbus communication

### Technical data of the generator <sup>1</sup>

Maximum flow <sup>2</sup>	Nm <sup>3</sup> /h	25.2
Outlet pressure	barg	4.5 to 6
Air inlet - Oxygen outlet diameter	" G	1" - 1/2 "
Required compressed Air flow	Nm <sup>3</sup> /h	258
Inlet Air Pressure	barg	> 7
Compressed air quality		class 1.4.1
Dimensions	mm	1580 x 976 x 2250
Weight	kg	1360
Power supply	120/230 V - 50/60 Hz - 2A	

<sup>1</sup> Performances values refers to the following conditions : 0°C and 1 atm

<sup>2</sup> The oxygen generator flow is adapted to the healthcare facility's consumption profile

### Oxygen quality

Purity	95% +/- 1%
Dew point	<-50 °C (< 67 ppm )
CO	< 2 ppm
CO <sub>2</sub>	< 150 ppm
SO <sub>2</sub>	0 ppm
NO <sub>2</sub>	0 ppm
Oil	< 0.05 mg / m <sup>3</sup>

# Premium 400

Oxygen generator 95% +/- 1%

## Prerequisites for installation of Oxyplus Technologies on-site oxygen production units

### 1/ Dedicated room:

The plant room provided should be exclusively dedicated to the oxygen production unit. It shall contain no storage or warehousing of any product whatsoever. In particular, the presence of flammable materials is strictly prohibited.

- **Minimum dimensions:** according to the layout plan approved by OXYPLUS Technologies (see example in the back).
- **Ground:** concrete slab to level.
- **Overload:** calculated for a load of 1 000 kg/m<sup>2</sup> minimum.
- **Coating:** smooth screed with floor paint or hard coating quartz type.

### 2/ Evacuation of condensate:

A connection point for the evacuation of condensed water linked with wastewater has to be provided in the room.

### 3/ Ventilation :

Provide a fresh air Intake – minimum 0.10 m<sup>2</sup> per Kw and a hot air extraction ventilator at the top of the room.

Warm air compressor should be wrapped and vented outside through ducts made of sheet insulating double pots.

Avoid installing the evacuation of hot air at the same side as the entry of cold air.

The room temperature must be above +5 °C and below the maximum temperature in the defined specification (30 °C is standard).

In case of room temperature exceeding 30°C, feed air unit should be designed in consequence.

### 4/ Electrical cabinet :

Power supply cabinet must be installed on premises. Details of requested power features will be provided by Oxyplus Technologies for each facility.

It must include a ground line in accordance with the regulations in force.

### 5/ Hospital network oxygen connection:

A connection to the oxygen piping network has to be provided in the plant room, or nearby.

### 6/ Lighting:

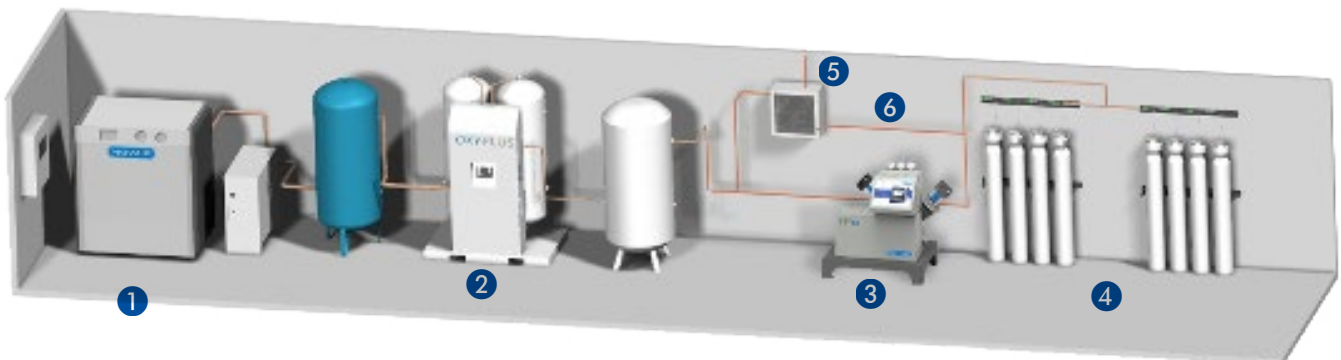
The room should be well lit, especially around compressor(s) and generator(s).

### 7/ Fire safety :

Security measures must be taken and displayed at the entrance of the premises:

- Smoking ban
- Open fire ban
- Sprinklers installation

**Local and international standards and guidelines must be respected, including ISO 10083 and EN ISO 7396-1.**



- |  |   |
|--|---|
| ① Feed air unit                          | ④ Cylinders (supplied upon request)           |
| ② Medical Oxygen Generator               | ⑤ Automatic changeover system                 |
| ③ High pressure cylinders filling system | ⑥ Connection to the hospital's piping network |

### *On-site oxygen production line*

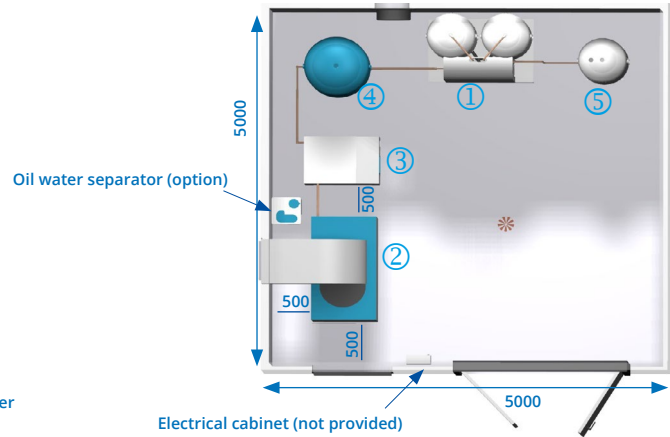
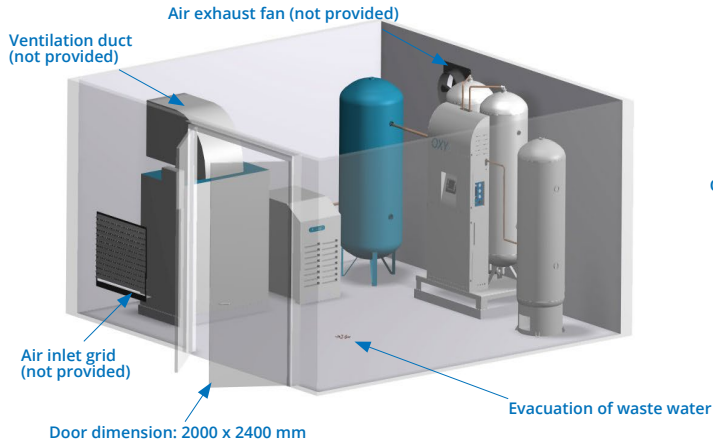
# Premium 400

Oxygen generator 95% +/- 1%

## Configuration examples

### In plant room

Dimensions: 5000 x 5000 x 2500 mm (Optimal recommended dimensions – for any specific configuration, please contact us)



*Installation example. Tailored layout plan supplied to Oxyplus partners.*

- 1 Oxygen generator Premium 400
- 2 Air compressor 30 kW
- 3 Air dryer
- 4 Air tank 900 L
- 5 Oxygen tank 500 L

### Skid mounted



### In container equipped with power cabinet, ventilation and lighting

