

**ULTRAOX<sup>®</sup>**

**Medical  
Oxygen  
Plants**



[www.ultracontrolo.com.pt](http://www.ultracontrolo.com.pt)

Made in Portugal

**ULTRAOX<sup>®</sup> ST Medical Oxygen Supply Systems**

# ULTRAOX®

## ULTRAOX® ST Plants

ULTRAOX® ST medical oxygen plants are designed to deliver high purity oxygen for medical use according to the European and American Pharmacopoeia parameters.

The production of medical oxygen is carried out on site, via an oxygen concentrator integrated in the ULTRAOX® ST plant, thereby ensuring drastic savings in annual costs with oxygen supplied to the hospital network.

The ULTRAOX® ST plant provides a continuous supply of medical oxygen with a purity of 94 %(+/- 1%), and is equipped with safety devices that ensures constant high purity.

With this, ULTRAOX® ST guarantees total safety in the use of medical oxygen by hospital staff.

## Turnkey systems and special executions

Due to the vast experience in the medical gas sector, we are able to supply an oxygen production system in compact versions, including modular systems.

## Regulation

The ULTRAOX® ST oxygen production plants are certified as medical devices, class IIb, and comply with the requirements of the international standard ISO 10083:2006.

Its design and manufacture meet the requirements of the implemented Quality Management System to ISO 13485:2016.

CE  
0120



Medical Oxygen Production Plant ULTRAOX® ST

### Oxygen quality in accordance with the European Pharmacopoeia

|  |            |
|--|------------|
| Purity of the O <sub>2</sub>                       | 94% +/- 1% |
| Particles  | < 1 µm     |
| CO <sub>2</sub>                                    | < 300 ppm  |
| CO   | < 5 ppm    |
| SO <sub>2</sub>                                    | < 1 ppm    |
| NO <sub>x</sub>                                    | < 2 ppm    |
| Working dew point                                  | - 46 ° C   |
| Tastes and smells                                  | Exempt     |
| Residual contents in initial operation conditions. |            |

More information at our website: [www.ultracontrollo.com.pt](http://www.ultracontrollo.com.pt)

# the smart choice

## Modular Construction

The ULTRAOX<sup>®</sup> ST oxygen production plants can be built according to the physical space available.

Depending on the characteristics of each use, we have designed the most compatible cost/benefit ratio production system.

The systems run fully automatic. Switching between the compressors and the start-up of the generators, in a cascaded way, ensures a continuous supply of oxygen to the hospital network or for the filling station.

## Basic Configuration

- 1 or more high quality screw compressors ULTRASCREW
- 1 or 2 or more compressed air treatment chains
- 1 or more air tanks
- 1 or more oxygen concentrators ULTRACON
- 1 or 2 oxygen analysers with a zirconium oxide probe
- 1 or more oxygen tanks
- 1 set of valves and safety devices for a good and long lasting operation of the equipment.



## Simplified and Secure Mounting

The medical oxygen production plants ULTRAOX<sup>®</sup> are factory pre-electrified and if requested, can be totally interconnected. Therefore, installation or assembling on site will become very simple.

The equipment is parameterized and tested in the factory and will be ready to start.

In large plants, the installation, initial start-up and training of personnel, is supervised by factory technicians.

## Compatibility

The system is designed in such way that one can keep the existing installation and connect the ULTRAOX<sup>®</sup> SC unit as if it was a new source of oxygen supply, following a few simple procedures.

Besides, with the ULTRAOX<sup>®</sup> plant, one can also establish its own autonomy of continuous supply of medical oxygen as it is being done with other medical gas supply systems (medical air supply system, medical vacuum system).



Filling manifold G4  
(4 cylinders)



High Pressure Compressor  
to fill in the bottles  
at 150 bar, type HP2



High Pressure Compressor  
to fill in the bottles at 150 –  
170 bar, type HP3

## Also get to know the state-of-art:

- ULTRAAR<sup>®</sup> totally oil-free medical air plants
- ULTRAVAC<sup>®</sup> medical vacuum systems
- ULTRASEG<sup>®</sup> AGSS systems

# ULTRAOX<sup>®</sup>

## Raising the medical gases quality standards

### ULTRAOX<sup>®</sup> ST Advantages

- ▶ Lower energy consumption
- ▶ Higher oxygen pressure availability
- ▶ Expandable without the need of concentrator replacement
- ▶ Few service parts and very easy maintenance
- ▶ Long life cycle before overhauling
- ▶ Medical Oxygen produced from Medical Air

### Complete range of products and accessories for medical gas installations:

- Digital Oxygen flow-meters
- Oxygen purity controllers
- Complementary information control box for Building Management Systems (BMS)
- High pressure compressors for filling cylinders station
- High pressure cylinders and valves
- Accessories for medical gas pipeline systems including: medical gas outlets, second stage regulators, valves, automatic changeovers, line regulators, pressure and temperature sensors
- Accessories for oxygen therapy, suction lines and anaesthetic gases, flow regulators and pressure regulators, vacuum regulators, junction jars, pressure regulators, suction kits, disposables.

| ULTRAOX ST |                                       |                   |                          |               |                             |          |
|------------|---------------------------------------|-------------------|--------------------------|---------------|-----------------------------|----------|
| Model      | Capacity O <sub>2</sub><br>(per unit) |                   | Compressor<br>(per unit) | Pressure      |                             | ULTRACON |
|            | l/min                                 | m <sup>3</sup> /h |                          | Inlet<br>(AC) | Outlet<br>(O <sub>2</sub> ) |          |
|            |                                       |                   | kW                       | bar           | bar                         |          |
| 3          | 5,3                                   | 0,318             | 2,2                      | 7,5           | 6                           | 1        |
| 8          | 13                                    | 0,777             | 2,2                      | 7,5           | 6                           | 2        |
| 12         | 17,9                                  | 1,072             | 4                        | 7,5           | 6                           | 3        |
| 30         | 51,7                                  | 3,1               | 5,5                      | 7,5           | 6                           | 4        |
| 50         | 76,7                                  | 4,6               | 7,5                      | 7,5           | 6                           | 5        |
| 70         | 108,3                                 | 6,5               | 11                       | 7,5           | 6                           | 6        |
| 90         | 133,3                                 | 8                 | 11                       | 7,5           | 6                           | 7        |
| 100        | 158,3                                 | 9,5               | 15                       | 7,5           | 6                           | 8        |
| 120        | 206,7                                 | 12,4              | 15                       | 7,5           | 6                           | 9        |
| 180        | 303,3                                 | 18,2              | 22                       | 7,5           | 6                           | 10       |
| 260        | 436,7                                 | 26,2              | 30                       | 7,5           | 6                           | 11       |
| 370        | 608,3                                 | 36,5              | 37                       | 7,5           | 6                           | 12       |
| 440        | 725                                   | 43,5              | 55                       | 7,5           | 6                           | 13       |
| 560        | 928,3                                 | 55,7              | 75                       | 7,5           | 6                           | 14       |

Other capacities under request.

**Note:** The dimensions includes space which is suitable for the compulsory maintenance and inspection of the equipment.

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