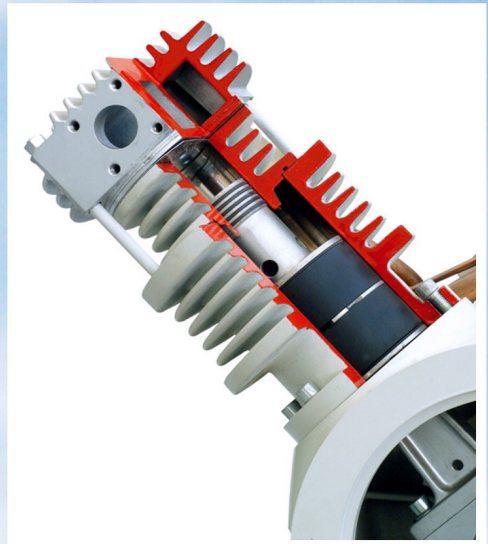


ULTRAAR[®]

**Oil-less
Medical
Air
Systems**



www.ultracontrolo.com

ULTRAAR[®] Oil-less Medical Air Systems

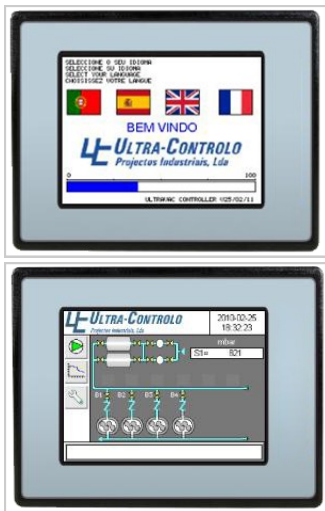
ULTRAAR®

ULTRAAR® systems

ULTRAAR® is a registered trademark for the **totally oil-free** medicinal compressed air supply systems, designed and developed by Ultra-Controlo, and implemented since 1997 with the aim of giving to everybody the best quality breathable air that can be produced by a Hospital.

ULTRAAR® is one of the results over 30 years experience implementing new technologies in compressed air treatment systems and process control applied in hospital environments, by Ultra-Controlo Engineering Department.

QuAir 3 Touch-Screen Controllers



Cover photo:
Catarina Miriam, 29 weeks,
1.26 kg, inhaling a mixture
of "medical air" and
oxygen. This is a common
situation for all premature
infants with respiratory
distress!

ULTRAAR® secrets

The installation of an ULTRAAR®, rated as class IIb, active medical device, provides to any hospital a complete peace of mind and security in production of medicinal air, considered today by the European Pharmacopoeia, and fortunately for the sake of health, as a medicine.

Possessing a medical compressed supply system, ULTRAAR®, the Hospitals enhances the quality of service given to patients, since they guarantee the delivery of medicinal air, truly breathable, completely free of contaminants. Also provides an excellent contribution in reducing expenditure on the production of medicinal air and contributes to the preservation of our planet since it uses completely clean process and free of pollutants.

ULTRAAR® end of troubles

With an ULTRAAR®, the hospital gets, once forever, free of all the dangers involved with the production of **poor medical air quality**, derived from the oil injection into medical air network, carried out by oil lubricated screw, vane or piston compressors in the existing installations.

Hospitals will get rid of other problems due to the frequent oil spills in the ground or pushed to the environment during pressure release in idle operation of the compressor.

Hospitals will avoid the huge costs of separation and collection of oils from the condensate network, ending all the filth that pervades the 'medical' air plants equipped with lubricated compressors.



**Totally oil free medical air system ULTRAAR 2.48/800
with oilless compressors ULTRACECO "S" series**

the right decision!

Regulatory Compliance

ULTRAAR® medical air supply systems, produces breathable air, the more safe and secure way without any risks to health and with a quality that **surpasses all international requirements** in force, including European Pharmacopoeia.

ULTRAAR® is constructed according to EN ISO 7396-1 standard and fulfills HTM 02 Technical Specifications and ET 03/2006 of ACSS. ULTRAAR® bears the CE-medical mark (CE 0120) complying the European Directive 93/42/EEC.

ULTRAAR® systems are designed and manufactured under an ISO 13485:2003 and ISO 9001:2008 Quality Management Systems.

Basic Configuration

- 1, 2, 3 or more compressors
- 1, 2, 3 air treatment units with a multi-stage purification system equipped with 'zero-loss' electronic condensate drains
- 1 electrical control panel
- 1, 2 or more air receivers
- 1, 2 or 3 sets of pressure reduction system with pressure gauges including sterile filters, isolation valves and test valves
- 1 set of valves and safety devices for smooth operation and long life of the equipment

Electric Control Box

- Analogue Control
- Digital Control **QuAir** with Human-Machine Interface and Touch-Screen Panel.
- ULTRACON console with digital and PC communication for Building Management System and/or central alarm network
- Remote monitoring system 24h available
- Back safety through mechanical pressure switch.

Oilless Compressors

ULTRAAR® are equipped with the latest technology of oilless piston compressors, ULTRACECO that runs without any sealing lubricant and designed with **two stages** of compression.

These compressors are made in cast iron body including high efficiency electric motors, protective inlet filter, unloading valves with integrated mufflers, stainless steel plate valves, control box with information of intermediate pressure and final pressure, alarms and preventive maintenance.



ULTRACECO compressor M serie

Receivers

Receivers in vertical construction with capacities from 0.2 to 6 m³, hot-dip galvanized treatment, painted outside with epoxy, and fitted with safety devices: Calibrated safety valve, calibrated pressure gauge, manual drain valve and automatic electronic drain valve with stainless steel mesh filter. Prepared to receive an additional emergency compressor.

Air treatment units

ULTRAAR® systems have a **unique** multi-stage purification unit that converts a compressed air source into internationally certified breathing air.

ULTRAAR® provide 10 stages of filtration:

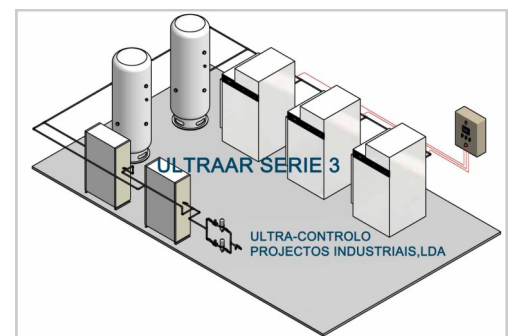
1. High efficiency dust retention filter
2. Condensed water separator
3. High efficiency microfilter
4. High efficiency submicrofilter
5. Air adsorption drying dessicant towers
6. Tower for CO oxidation
7. Tower for CO₂, NO_x and SO₂ removal
8. Activated carbon tower
9. High efficiency particle filter
10. Sterile air filter

Technical data

- Working pressures: 6-8 bar, 8-10 bar and 10-12 bar
- Máx. pressure: 10, 12 e 14 bar
- Standard capacities*: 16 to 160 m³/h
- Power rates*: 2,2 a 30 kW, 400V, 50Hz

*Capacity and power per compressor
Other capacities and pressures, on request.

ULTRAAR® is the right medical air plant that ensures the hospital pharmacist in absolute and without surprises, the granted quality of medicinal air (medicine) being delivered, at any moment, to the hospital network!



ULTRAAR 3D series

ULTRAAR®

Raising medical gases quality standards

ULTRACECO compressors

The quality of non-ferrous materials in contact with the compressed air, along with the reduced number of moving parts and the fact they are designed for continuous operation, ULTRACECO has proven over the years to be the **most reliable heavy duty compressor** installed in hospitals.

At the same time it fulfills the task to ensure the uninterrupted supply of medical air into the hospital network, thereby safeguarding the security and integrity of the patients and medical staff.

Preventive maintenance Safe and economical

The maintenance of ULTRAAR® air supply systems is performed only by factory technicians so to ensure that the medical device is always in perfect operational conditions.

Behind the ULTRAAR® there is a team of professionals with competence and knowledge to care of the medical devices and ensure their preservation over the years.



Preventive maintenance in ULTRACECO oil-less compressor is a snap, saving a lot in service and spares-parts!

Proven quality year after year

- ▶ Perfect control of the air quality delivered to the patient and the surgeon, totally risk-free
- ▶ Clean air production process complying with the Directive 96/61 EEC, environmentally friendly
- ▶ Pressure losses permanently very low, keeping over use, a constant flow
- ▶ Ultragest control and unclogged filters all over the time, provides low power consumption and money savings in spares
- ▶ Life cycle of at least 20 years. With proven experience in hospitals - 40 years and 100% operational!

Air quality in accordance with the European Pharmacopoeia

Particles	< 1 µm
Oil (fluid phase)	Exempt
Oil vapor and hydrocarbons	Exempt
CO ₂	< 500 ppm
CO	< 5 ppm
SO ₂	< 1 ppm
NO _x	< 2 ppm
Working dewpoint	- 46 ° C
Maximum dew point	- 70 ° C
Tastes and smells	Exempt

Residual contents in initial operation conditions

ULTRAAR type	Compressor capacity m ³ /h @12 bar	Motor power kW 400V/50Hz	Receiver liters
3.24/500D	3 x 24	3 x 4,0	2 x 500
3.48/800D	3 x 48	3 x 7,5	2 x 800
3.50/1000D	3 x 50	3 x 11	2 x 1000
3.70/1000D	3 x 64	3 x 11	2 x 1000
3.80/1000D	3 x 80	3 x 15	2 x 1000
3.100/1500D	3 x 102	3 x 18,5	2 x 1500
3.130/1500D	3 x 130	3 x 22	2 x 1500
3.160/1500D	3 x 160	3 x 30	2 x 1500

We design and build medical air systems ULTRAAR® up to 8 compressors and with configurations according to your needs. We also manufacture vacuum supply system, so-called ULTRAVAC®. We can recommend the best solution in terms of the rules for use and technical specifications, or enhance the existing air supply system, reducing operating costs. For further enquiries, please consult our Engineering Division.

Authorized Distributor



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