INNOVATIVE GAS SYSTEMS

the new dimension for medical oxygen

OXYSWING®
PSA MEDICAL OXYGEN CONCENTRATORS

Unlimited System Flexibility

The modular design of the OXYSWING® Medical Oxygen Concentrators allows an unlimited flexibility in the selection and lay-out of a medical oxygen supply system. After installation the end user has even the possibility to adapt his generator to changed oxygen supply conditions by simply varying the number of PSA modules of the unit. Thanks to this unique and patented design no other changes to the system are required. Additionally, the Dual Bank system option makes it possible to double or even to triple the generator's output flow, so that any medical oxygen requirement can be satisfied at very competitive costs.

Innovative Technology

Besides an innovative design, OXYSWING® Medical Oxygen Concentrators set market standards in terms of performance and efficiency by means of IGS' patented **FlatFlow®** gas distribution system. The **FlatFlow®** technology has been developed with extensive CFD simulations and allows an unmatched gas distribution inside the PSA towers for a maximum utilization of the molecular sieve beds in combination with a very compact tower design.

Certified Quality

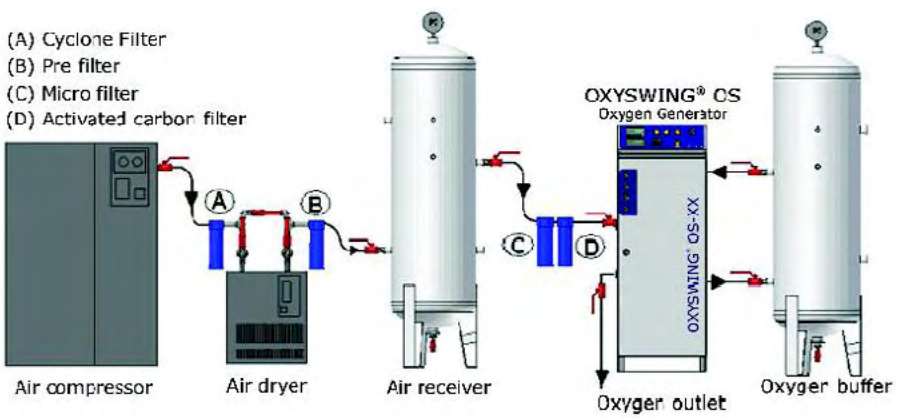
Also in terms of quality the OXYSWING® Medical Oxygen Concentrators offer a new dimension: all our activities are in accordance with the quality management systems ISO 9001:2000 and ISO 13485:2003.

OXYSWING® Medical Oxygen Concentrators are also certified to the 93/42/CE directive for medical devices, which makes them completely suitable for any healthcare application.

Reliable, Convenient & Simple

- Process piping, valves and air treatment of each supplied concentrator already sized for the maximum possible number of PSA modules;
- Standard process piping and valve bodies made of stainless steel;
- Components from first-class international suppliers with proven durability even under harsh operating conditions and available throughout the world;
- Standard oxygen analyzer with zirconium-oxide measuring cell:
  - maximum measuring reliability
  - no annual measuring cell renewal required
  - no yearly calibration required
- Optional electronic flow meter installed inside the metal cabinet;
- Optional CO_2 analyzer;
- Optional telemetry for remote monitoring and control of the oxygen generator;
- Robust and simple design for minimum maintenance requirements;
- No skilled personnel needed for system modification at the installation site in case of changed oxygen supply conditions.

Safe Production Process



PSA (Pressure Swing Adsorption) technology permits producing oxygen by pressurization with low-pressure compressed air of two towers filled with zeolite molecular sieve in cyclic alternation. While one of the towers is in adsorption phase, the other one is regenerated by reducing the pressure. By optimizing this process, OXYSWING® oxygen concentrators set market standards in terms of performance and efficiency.

Special Products

Thanks to the design of the OXYSWING® oxygen line, IGS can supply the most compact, turn-key portable field hospital units on the market. Additionally, IGS offers special medical oxygen production plants for the filling of high-pressure cylinders, which can be operated even under harsh ambient conditions. These special OXYSWING® systems can be supplied either on a single skid or installed in an ISO transport container.

PSA MEDICAL OXYGEN CONCENTRATORS

Performance table

Flow (Liter/min.) with air inlet pressure at 7 bar(g)						
Purity Vol. % O_2	OS-8	OS-16	OS-24	OS-32	OS-40	OS-48
90	48	96	145	192	238	283
93	46	94	141	187	232	274
95	45	92	138	183	227	270
Oxygen discharge pressure: 5 to 6 bar(g) / 72 to 87 psig						

The use of the Dual Bank System will double or triple the above mentioned flow rates

Maximum compactness, minimum space		
MODEL	DIMENSIONS (mm)	WEIGHT (Kg)
OS-8	550 x 769 x 1672	306
OS-16	550 x 1039 x 1672	457
OS-24	550 x 1309 x 1672	609
OS-32	550 x 1579 x 1672	760
OS-40	550 x 1849 x 1672	912
OS-48	550 x 2119 x 1672	1063

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