

SOMETHING IN THE AIR



OPERATING ON THREE CONTINENTS
WORLD CLASS TECHNOLOGY
PRODUCT DEVELOPMENT SUPPORTED BY R&D FACILITIES IN US, EUROPE AND ASIA
PROFESSIONAL SERVICE

IGS GROUP

Innovative Gas Systems is one of the world's major suppliers of on-site air separation plants for the production of nitrogen and oxygen. IGS' technologies for the production of nitrogen by Hollow Fiber Membranes and for the production of nitrogen and oxygen by optimized Pressure Swing Adsorption processes set new market standards in terms of performance and efficiency. The IGS production facilities and numerous sales and service centers throughout the world provide the very same standards of quality and product consistency.





OSCAR R. L. DE GROEN Managing Director IGS Italia

IGS ITALIA

IGS Italia is one of IGS' multifunctional centers. It is the group's production facility in Europe and it also comprises an Engineering Division, a Sales Department and a Technical After-Sales Service Team. We produce a broad range of nitrogen and oxygen generators and tailored, finely engineered plants for applications in the oil & gas, mining, health-care and industrial sectors. Each plant is carefully designed, built and commissioned according to the local regulations applicable in the countries of installation.

company

PHILOSOPHY

Behind all our activities lies trust: the trust our customers have in our ability to meet their specific needs in terms of both quality standards and agreed delivery terms. Our prime aim is to establish long-term professional relations based on transparency and reliability.

CONSULTANCY

Our team of highly skilled professionals provides all the flexibility required to develop and design our generators. Commitment towards understanding the needs of our customers drives us to constantly look for the best possible solution for each specific operating condition. But our advice is not restricted to our products alone. Wherever possible, we also suggest improvements regarding the use of the produced gas in order to increase efficiency and to cut costs.







QUALITY

All activities within the company strictly comply with our quality management system procedures, which are regularly updated and optimized. Our welders are qualified according to the most stringent regulations and for different types of materials. Communication quality is ensured by our multi-lingual staff, who is able to interact directly with customers, thereby speeding up processes, insuring easier information exchange and increasing mutual trust.

ENVIRONMENT

It is our policy to minimize and to continuously improve the environmental impact of all our activities. According to our environmental management system we constantly verify and correct our consumption of utilities and our waste disposal and we pay special attention to the material selection for our products and services.







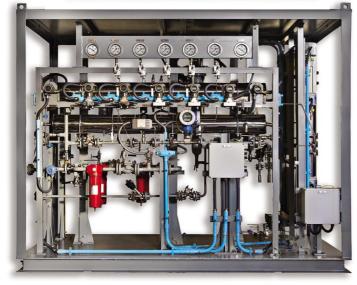






To produce Nitrogen and Oxygen, IGS Italy uses the principles of air separation. Hollow Fiber Membrane technology is used to produce Nitrogen, PSA (Pressure Swing Adsorption) technology for the production of Oxygen or high-purity Nitrogen.

The IGS group is one of the world's major manufacturers of Hollow Fiber Membrane modules.



Our modules are the result of an extensive effort in R&D and set new market standards both in terms of performance and efficiency.

IGS Italy is able to provide customized solutions for any kind of application in various sectors and according to all required regulations.









engineering



The plants can be supplied on skids or turnkey assembled inside ISO transport containers. All components are selected according to the environmental conditions and the installation site classification.

Where required, we can supply sophisticated control systems for our products which, besides the standard Local Control Panel (LCP), can transmit data to the customer's DCS, or provide plant control directly by the DCS eventually extended with a backup system.

On request local instrumentation can be supplied with either the HART $^{\circledR}$ or the Foundation TM Fieldbus bi-directional communication protocol.

Before shipment, all our plants are carefully factory tested. If so required, tests can be performed together with customers to ensure product suitability.







TECHNOLOGY

Our PSA technology is the result of extensive R&D efforts and years of experience acquired by the entire IGS Group. By optimizing the various process stages to the utmost, our plants maintain a high degree of simplicity to insure greater robustness. The result is a range of extremely efficient products at very competitive pricing. Product safety is guaranteed by both the fatigue analysis for cyclic loads applied for our PSA tower design and the certification of our plants to the relevant European or US directives for pressure equipment and machineries.

STANDARD PRODUCTS

IGS Italia's NITROSWING® and OXYSWING® PSA generators are based on a modular tower design (*) and offer the customer an unmatched flexibility for the on-site generation of nitrogen and oxygen. These unique products can easily be upgraded at any time simply by adding modules or by installing a so-called dual-bank in parallel without additional modifications. A dual-bank is a set of modules with all necessary piping and valves, which is controlled directly by the PLC of the master plant. Reduced system dimensions and a small footprint in combination with a maximum PSA process efficiency are guaranteed by the application of our innovative **FlatFlow®** gas distribution system (*). Besides our modular systems, we also offer medium-sized and large twin-tower PSA nitrogen and oxygen generators. All our standard models can be enhanced by a series of optional features to allow the user to have a custom-built solution that meets his specific requirements.

MAIN APPLICATIONS

 $\operatorname{NITROSWING}^{\circledR}$

OXYSWING®

CPI
Electronics
Foaming
Food & Beverage
Heat Treatment
Laser Cutting
Oil & Gas

Aquaculture
Brazing/Welding
Ceramics/Glass
Healthcare
Mining
Water Treatment
Wellness

The medical version of our OXYSWING[®] modular PSA oxygen generators is certified as Class IIB medical device according to the directive 93/42/EEC.



2802

SPECIAL PRODUCTS

IGS Italia has a range of high-pressure cylinder filling systems available, which can be easily connected to any of our nitrogen and oxygen generators. Optionally we can supply turn-key installed plants inside ISO transport containers for outdoor installations. On request IGS Italia can also design completely custom-built plants.





AFTER-SALES SERVICE

After-sales service is an integral part of our philosophy. Consumables and spare parts for our products will be supplied directly from our warehouse in Italy or through our local distributor. Our technicians will travel to customers all over the world to insure a correct plant installation, for commissioning and start-up and for training of customer's personnel. We can also provide programmed maintenance packages, complete with services and spare parts.

REFERENCES

The IGS Group / IGS Italia have delivered thousands of plants to all levels of the industry. We supply to small local companies as well as to the largest customers in the Oil and Gas, Marine and Industrial Markets.

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