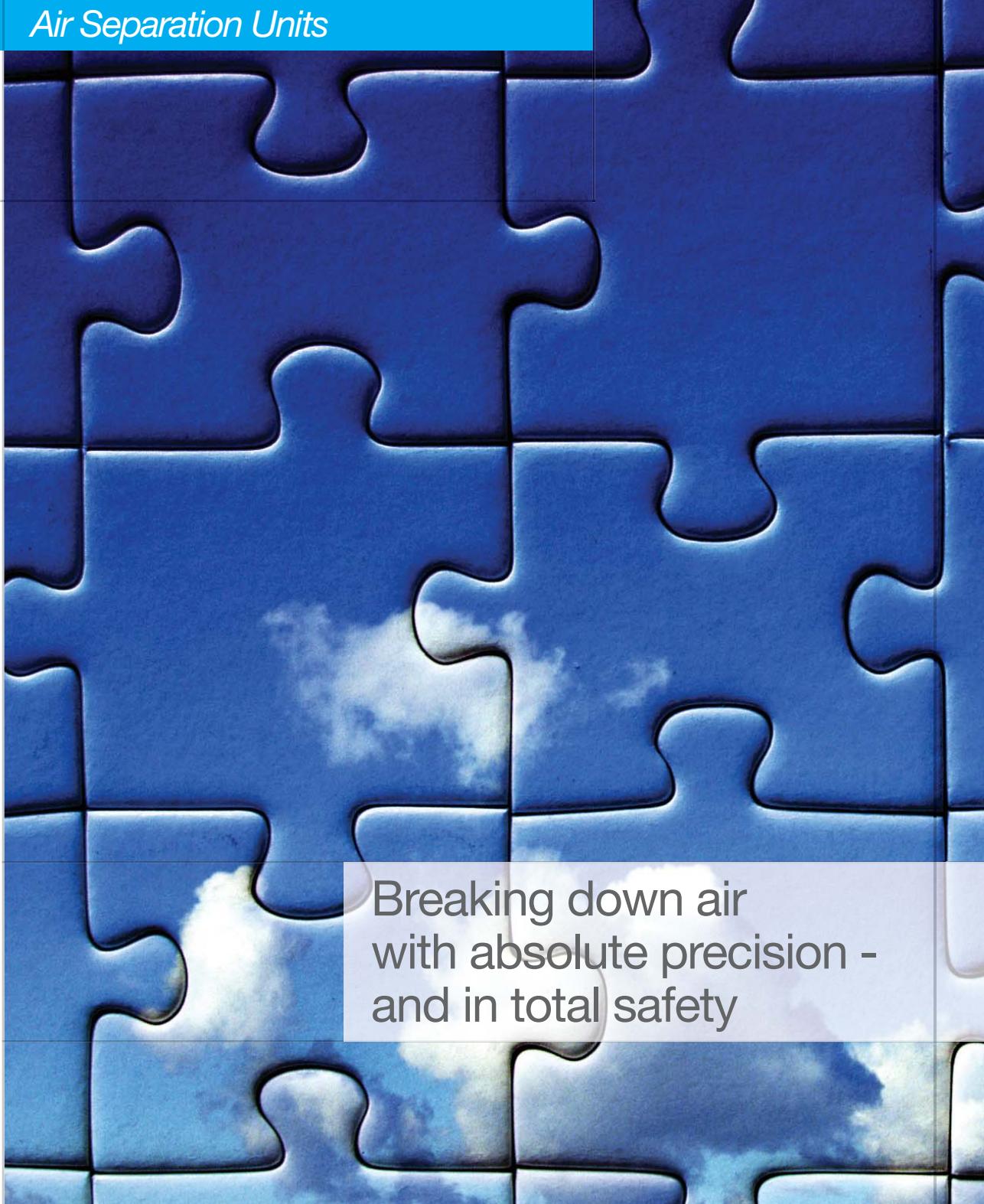


Air Separation Units



Breaking down air
with absolute precision -
and in total safety

Air Separation Units for the production of Oxygen, Nitrogen and Argon

SIAD Macchine Impianti supplies Air Separation Units to the highest quality standards for the liquid or gaseous production of industrial gases using the cryogen process with tray or packing technology.

Guaranteed continuous supply of oxygen, nitrogen and argon of the highest purity.

SIAD Macchine Impianti has developed its own processes for the selection and dimensioning of equipment with the most flexible technical solutions.

Its strong point is the fact that the company is able to coordinate customers' requests with its experience and provides tailor-made solutions based on the continuous monitoring of project development. This is achieved thanks to a flexible, expert design team and a network of efficient staff members distributed throughout the world.

Engineering services

- Feasibility studies;
- commissioning supervision;
- erection, start up and performance testing;
- remote control.

Technical standard

The experience of the SIAD Macchine Impianti engineers, at the service of its customers, has created a certified standard which is adaptable to the various requirements of small, medium and large-sized industries.

Oxygen Nitrogen Argon ASU

Capacity	- Oxygen from 25 Nm ³ /h to 60 000 Nm ³ /h (0.8 - 2 050 TPD) - Nitrogen from 75 Nm ³ /h to 180 000 Nm ³ /h (2.3 - 5 400 TPD) - Argon recovery 92%
Purity	- Oxygen 99.95% and beyond - Nitrogen < 1 ppm O ₂ - Argon < 1 ppm O ₂

Oxygen Nitrogen ASU

Capacity	- Oxygen from 25 Nm ³ /h to 60 000 Nm ³ /h (0.8 - 2 050 TPD) - Nitrogen from 75 Nm ³ /h to 180 000 Nm ³ /h (2.3 - 5 400 TPD)
Purity	- Oxygen 99.9% and beyond - Nitrogen < 1 ppm O ₂

Nitrogen ASU

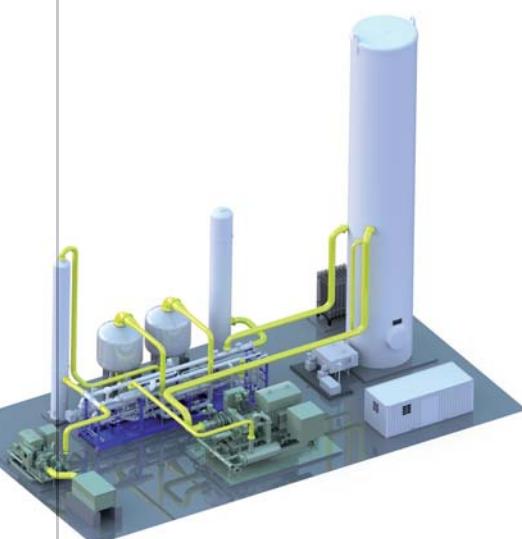
Capacity	- Nitrogen from 250 Nm ³ /h to 50 000 Nm ³ /h (8.5 - 1 500 TPD)
Purity	- Nitrogen < 1 ppm O ₂

OxySTEEL, OxyCEMENT, OxyPAPER

Capacity	- Oxygen from 800 Nm ³ /h to 16 000 Nm ³ /h (27 - 540 TPD) - Nitrogen can be supplied on request
Purity	- 95% for gaseous O ₂ - 99.5% for liquid O ₂ - 99.9% for gaseous N ₂

Smart Liquid Plant

Capacity	- Liquid Oxygen from 330 Nm ³ /h to 2 500 Nm ³ /h (12 - 90 TPD) - Liquid Nitrogen from 600 Nm ³ /h to 3 000 Nm ³ /h (19 - 98 TPD)
Purity	- Oxygen 99.6% - Nitrogen 99.999%



Equipment design features

Air separation method

Plants perform cryogenic air separation, i.e. low temperature rectification.

Characteristics of this method:

- high purity products;
- high recovery ratio;
- low power consumption;
- production of products in gaseous and liquid forms;
- simultaneous production of more than one product;
- multi-duty operation.

Materials and components

In plant construction, only high quality and durable materials and components are used. Cryogenic parts and equipment inside distillation columns are isolated with special insulation to minimize heat loss.

Know-how and innovation

SIAD Macchine Impianti uses its own know-how for the innovative cryogenic plant design. Top priorities: research and development, continuous improvement in efficiency and up-dating technology.



Complete compliance with local and/or international standards.
Tailor-made solutions to meet all production requirements.

Automatic control system

Advanced PLC based automation:

- providing maximum effectiveness of the plant (optimization);
- automatic monitoring of normal operation mode (without operator supervision);
- automatic data logging (archives for diagnostics);
- guarantees safety and reliability of the equipment;
- tele-control of the plants from producer's side.

Easy installation

Plants are shipped in modular section for easy and low cost installation. The equipment is installed as enlarged modules, which are then connected during installation on site with the minimum number of interfaces on pre-fabricated foundations. As a consequence, there is a reduction in the cost of installing and commissioning. An option is available for commissioning test, start-up and performance test, performed on site under the careful supervision and responsibility of SIAD Macchine Impianti's expert site engineers.



Applications

The professionalism and know-how of SIAD Macchine Impianti's technical staff is at the disposal of clients every day, in order to respond successfully to their requirements.

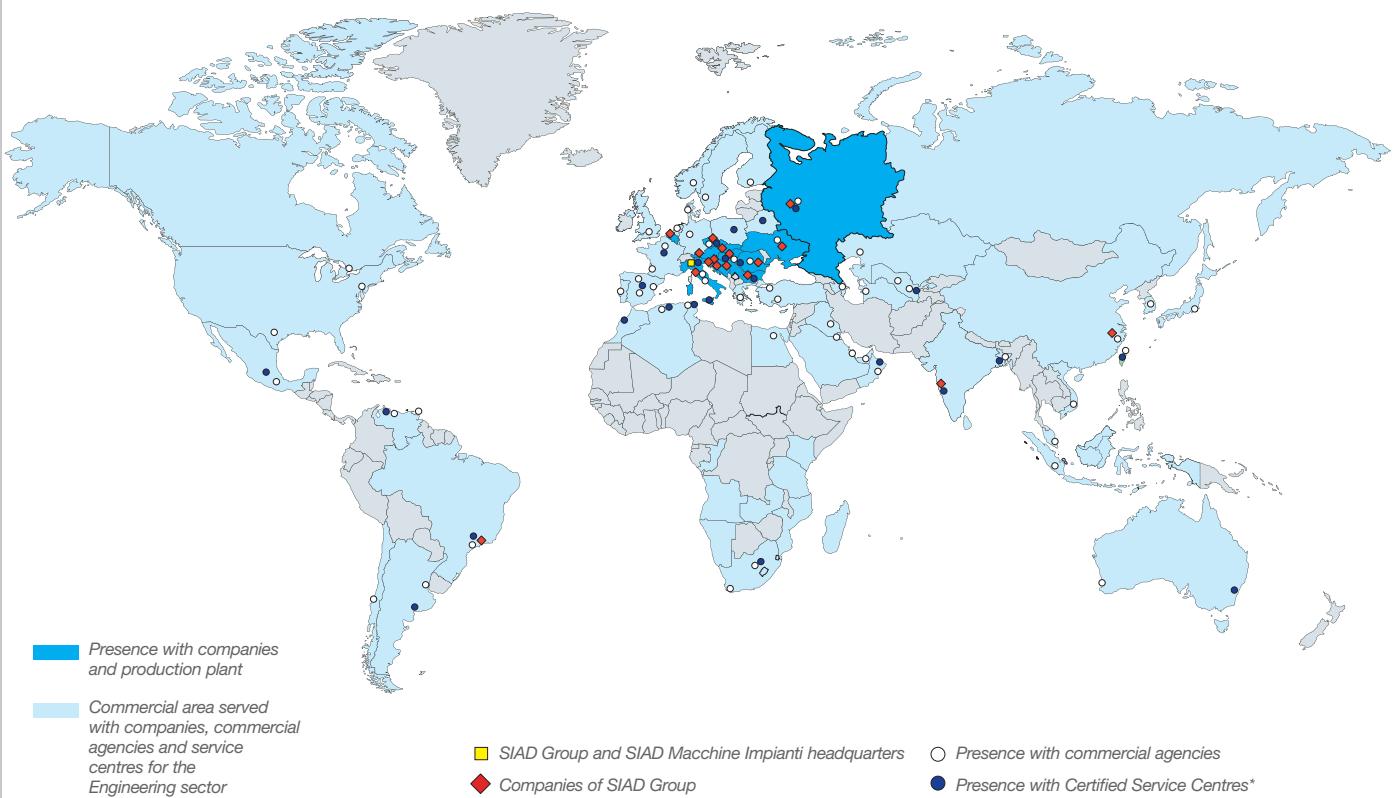
The company offers a complete range of plant, satisfying the most sophisticated demands, and continues to develop new and more efficient solutions for the application of technologies involving different industries.

- Cement
- Chemical
- Energy and Power Generation
- Exploration and Production
- Food & Beverage

- Gas Industry
- Glass
- Metal Production
- Petrochemical
- Pulp and Paper
- Refinery

For information:
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SIAD Group: present in Europe and throughout the world



*Please check the new Certified Service Centres on the website www.siadmi.com



Technical assistance
internationally appreciated
for top quality.

Global Service Division: a complete range of services

To reduce operating costs and to maintain the high efficiency of its Air Separation Units, SIAD Macchine Impianti offers its customers a complete range of services, together with a network of Certified Service Centres in five continents, utilizing skilled technicians.

ASU maintenance and supply of spare parts:

- supply of spare parts;
- maintenance work;
- preventive and predictive maintenance.

On-site support:

- commissioning and start up supervision;
- support for unit stop, restart up and tuning.

Remote assistance for ASU management:

- remote monitoring/parameter checks.

Training courses:

- on-site theoretical and practical courses;
- theoretical and practical courses at the SIAD Macchine Impianti factory.

For assistance: siadmi_support@siad.eu

The SIAD Group



Industrial gases

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