

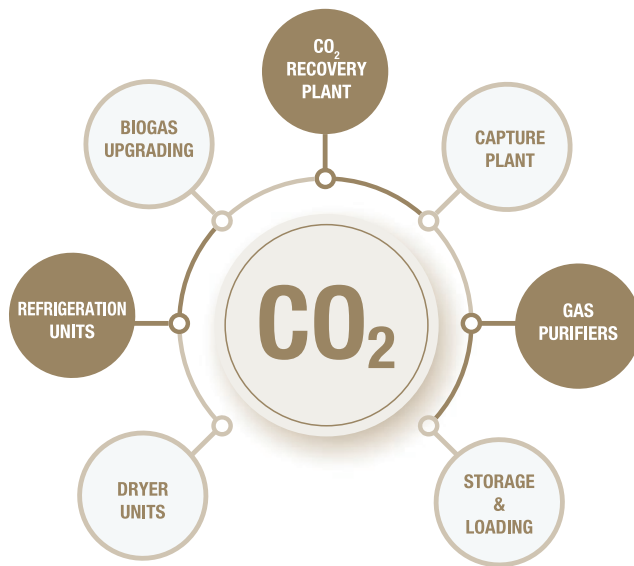
*CO<sub>2</sub> Recovery  
and Liquefaction*



CO<sub>2</sub> for your drinks  
since 1987

## Tecno Project Industriale Capabilities

Turn-key projects and tailor made plants



Tecno Project Industriale is an Italian company part of the SIAD Group SpA. TPI is specialized in the Design, Procurement and Construction of plants like:

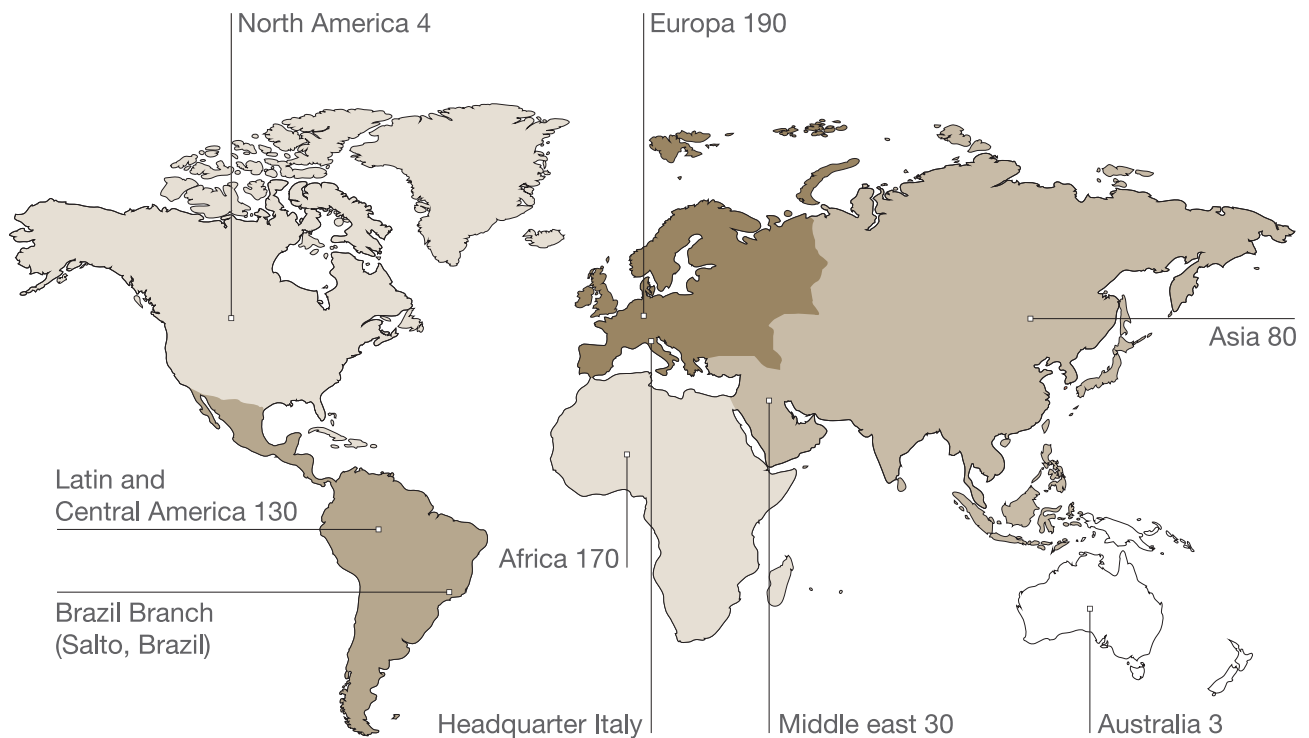
- CO<sub>2</sub> Recovery, Production and Extraction plants (purity >99,9%);
- Biogas upgrading plants for the production of Biomethane and CO<sub>2</sub>.

Main features:

- Complete tailor made design according to client request;
- High flexibility;
- Low consumptions;
- Compact design and optimization;
- 24/7 remote service.

## TPI CO<sub>2</sub> plants in operation

More than 600 installation around the world



# CO<sub>2</sub> Capture plants

## CO<sub>2</sub> Extraction and Production plant.

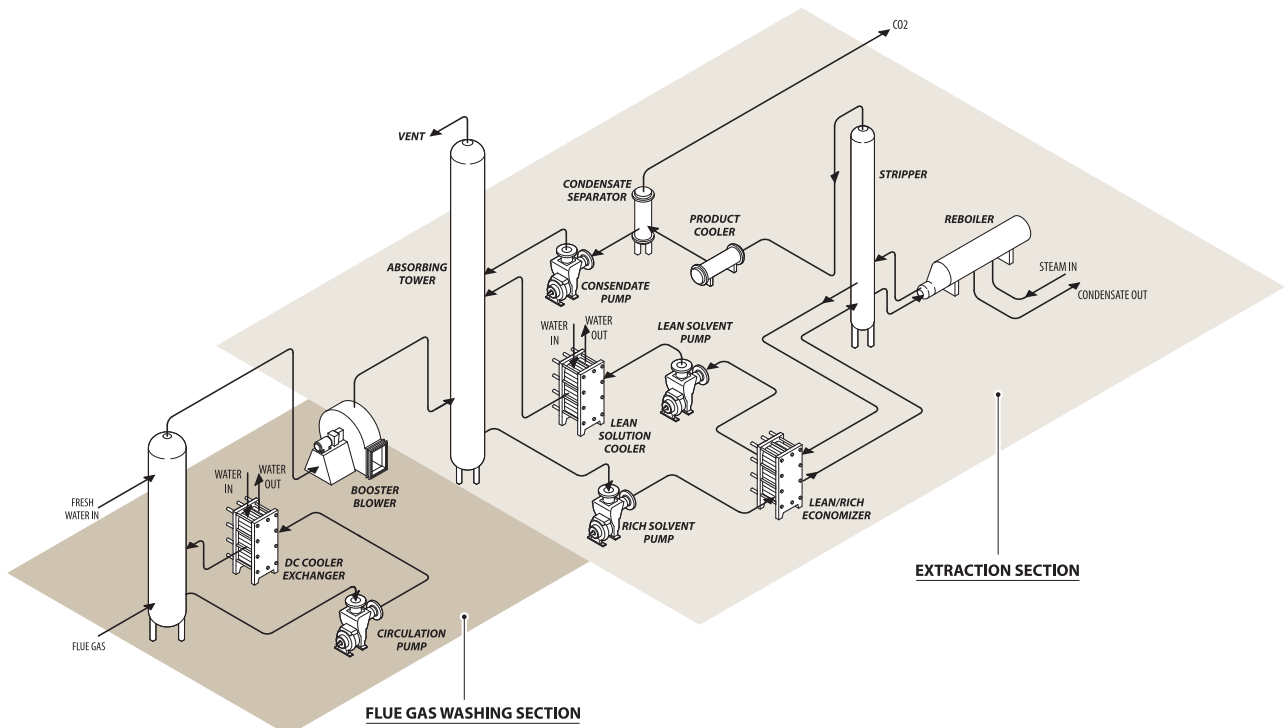
TPI capture plants for CO<sub>2</sub> extraction from poor sources (CO<sub>2</sub> content down to 5% v/v) are the solution for local production of high purity 99.998% CO<sub>2</sub>, ISBT and EIGA quality guidelines compliant, from waste flue gas streams:

### Who it's for:

- Food and beverage field;
- Industrial gas producers;
- Waste and biogas companies;
- Petrochemical and chemical fields.



## Plant flow diagram





# CO<sub>2</sub> Recovery Plants

## CO<sub>2</sub> Recovery plant.

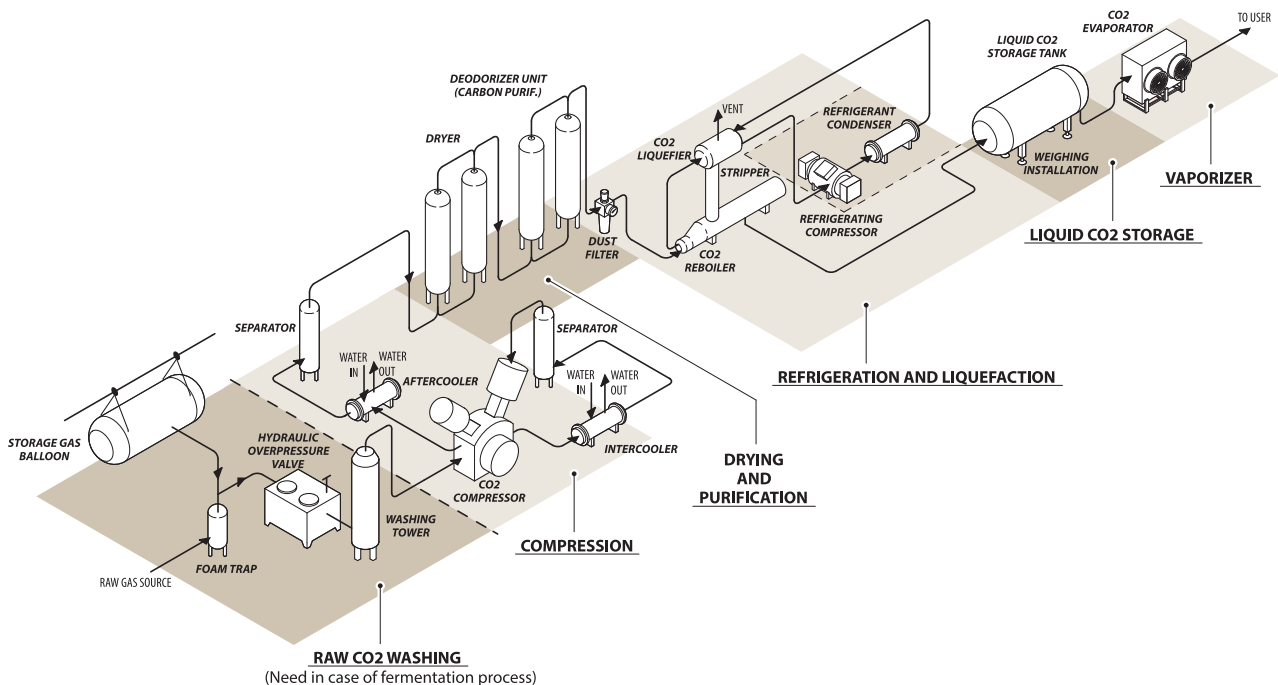
TPI plant for CO<sub>2</sub> Recovery and liquefaction are optimized to ensure automatic and trouble free operations, granting a continuous production of 99.998% pure CO<sub>2</sub>, ISBT and EIGA quality guidelines compliant.

### Who it's for:

- Fermentation sources from Breweries, Distilleries and Bioethanol Distilleries;
- CO<sub>2</sub> revert gas recovery from Dry Ice Production;
- Biogas upgrading CO<sub>2</sub> rich offgas;
- Recovery Plants for Gas producers from process sources.



## Plant flow diagram



## Biogas Upgrading: optimal Biomethane production

### Biogas Upgrading with 3-stage HPSM Membrane Systems

The HPSM plants developed and industrialised by TPI make it possible to obtain high levels of purity with recovery efficiency in excess of 99%, thus making the pure biomethane suitable for distribution in national gas networks.

### Characteristics

- High pressure operating system;
- The CO<sub>2</sub> can be easily recovered with a suitable TPI plant, also making it possible to eliminate the small loss of methane completely;
- Simple and innovative system;
- Biomethane delivery pressure from 10 to 20 bar; biogas flow rate from 50 Nm<sup>3</sup>/h to 3,000 Nm<sup>3</sup>/h.

### Advantages

- Simplicity and compactness;
- Flexibility;
- Immediate start-up;
- Safety and Security.

### Biogas Upgrading with Selective Solvent Plants

The plant technology is based on the use of a dedicated solvent enriched with specific additives suitable for the treatment of biogas, that also allow the removal of CO<sub>2</sub> without any special pre-treatment process. The biomethane obtained by this process is of extremely high purity (more than 99%). With respect to traditional amines, solvent consumption is far lower.

### Characteristics

- Flow rate from 500 Nm<sup>3</sup>/h;
- High purity of CH<sub>4</sub>;
- High purity of CO<sub>2</sub>;
- Ideal also for possible successive production of bio-LNG.



### Aftersale Service

Our technical assistance is an internationally appreciated sign of quality. The Aftersale Service of Tecno Project Industriale, in close collaboration with the Engineering Department, can offer customers technical solutions to solve problems immediately. Tecno Project Industriale is attentive to the strict quality control of its products and services and to ensure prompt, efficient and competent technical assistance.

#### Providing services for: CO<sub>2</sub> recovery & production plants

- CO<sub>2</sub> Plants Inspective/Preventive/Corrective maintenance
- Service Level Agreements
- Remote assistance for CO<sub>2</sub> Plants management via TPI4U
- Training courses
- CO<sub>2</sub> Plant improvements

#### Providing services for: Biogas Upgrading Plants

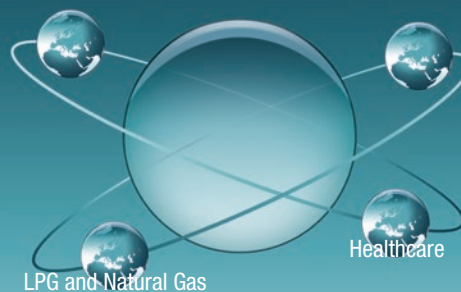
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