



BIOGENIC CO₂ FROM BIOMETHANE PLANTS: TECHNOLOGIES AND APPLICATIONS

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Engineering

Technical gases



LPG and Natural Gas

SIAD Group is one of the major Italian chemical Group with plant and offices in Europe and worldwide.

International presence

16

Countries with
company offices in
the Industrial Gases
sector

11

Countries with
company offices in
the Engineering
sector

40

Engineering sector
service centers

People and Safety

2.278

Employees 2023

50.502

Hours of training
2023

15.871

HSE training
2023

Group results

1.008
million €

2023 turnover

47%

International
turnover

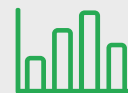
283
million €

EBTDA

Sectors



Industrial
Gases



Engineering

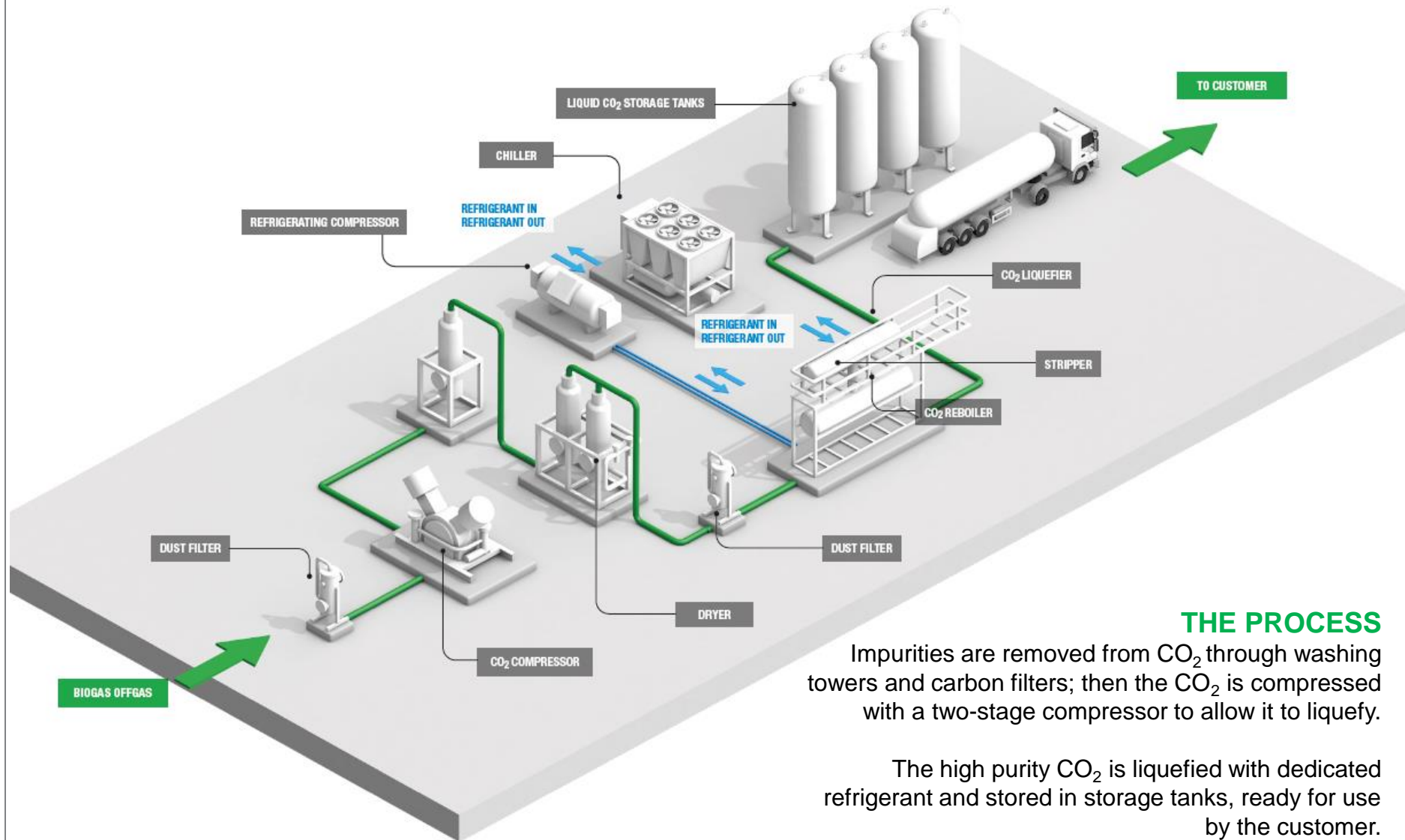


LPG and
Natural Gas



Healthcare

CO₂ Liquefaction Plant

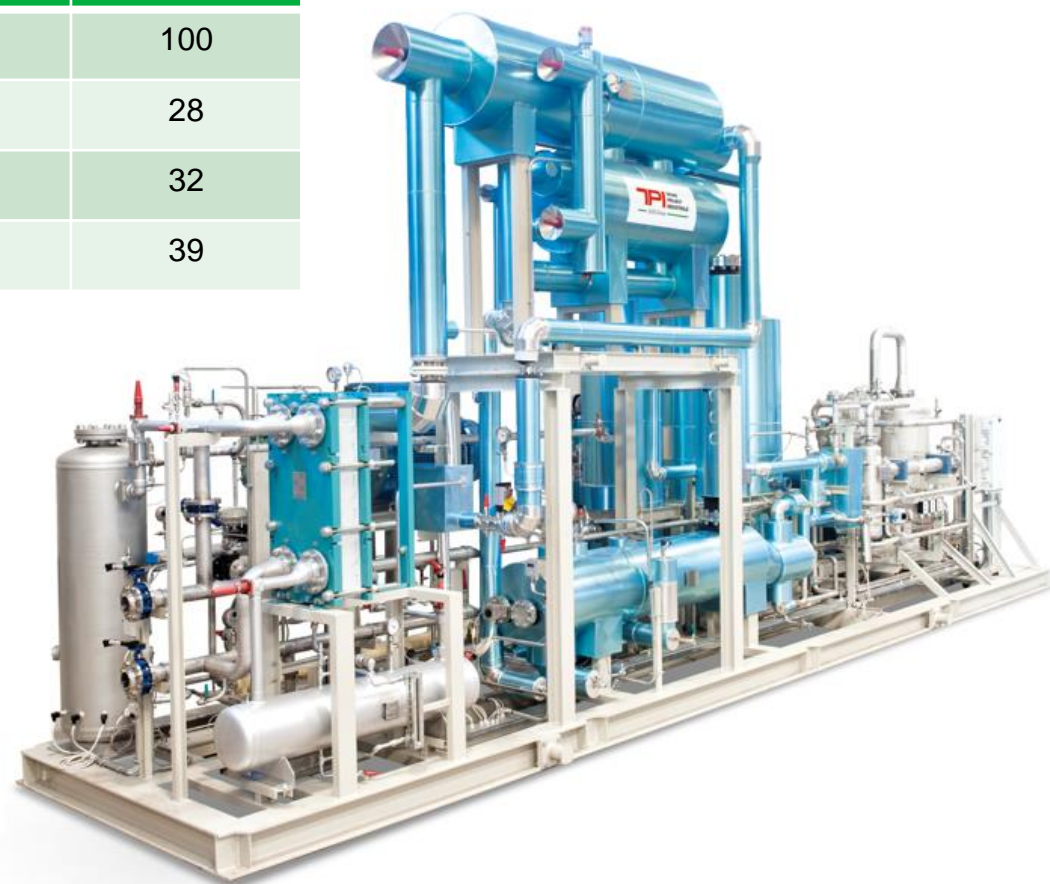


THE PROCESS

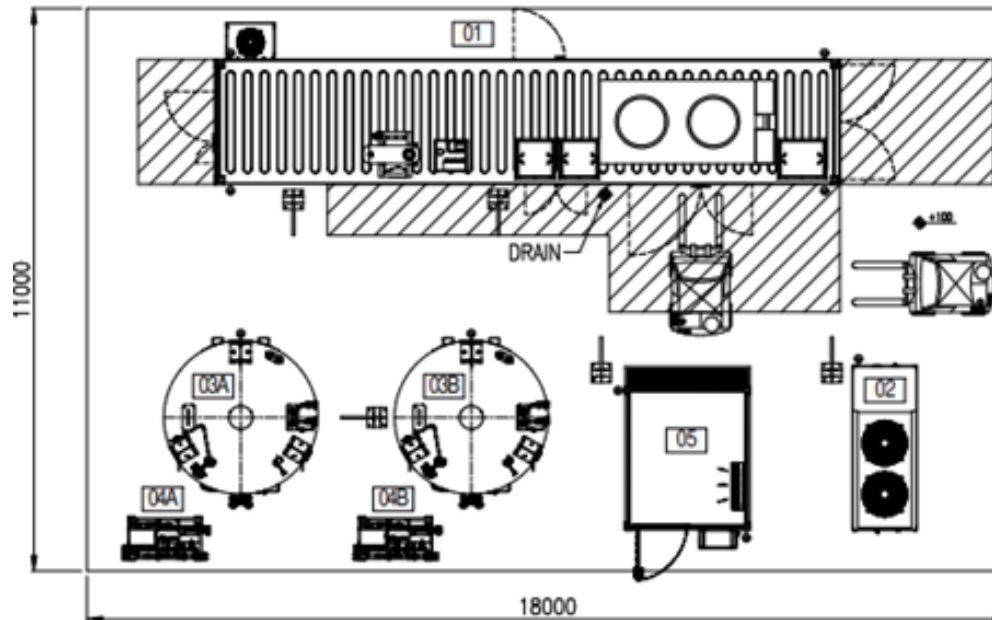
Impurities are removed from CO₂ through washing towers and carbon filters; then the CO₂ is compressed with a two-stage compressor to allow it to liquefy.

The high purity CO₂ is liquefied with dedicated refrigerant and stored in storage tanks, ready for use by the customer.

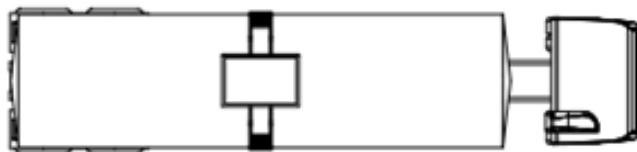
CO ₂ Plant	Nr.
Breweries	100
Liquefaction from Biogas Upgrading	28
Carbon Capture	32
Gas Companies	39



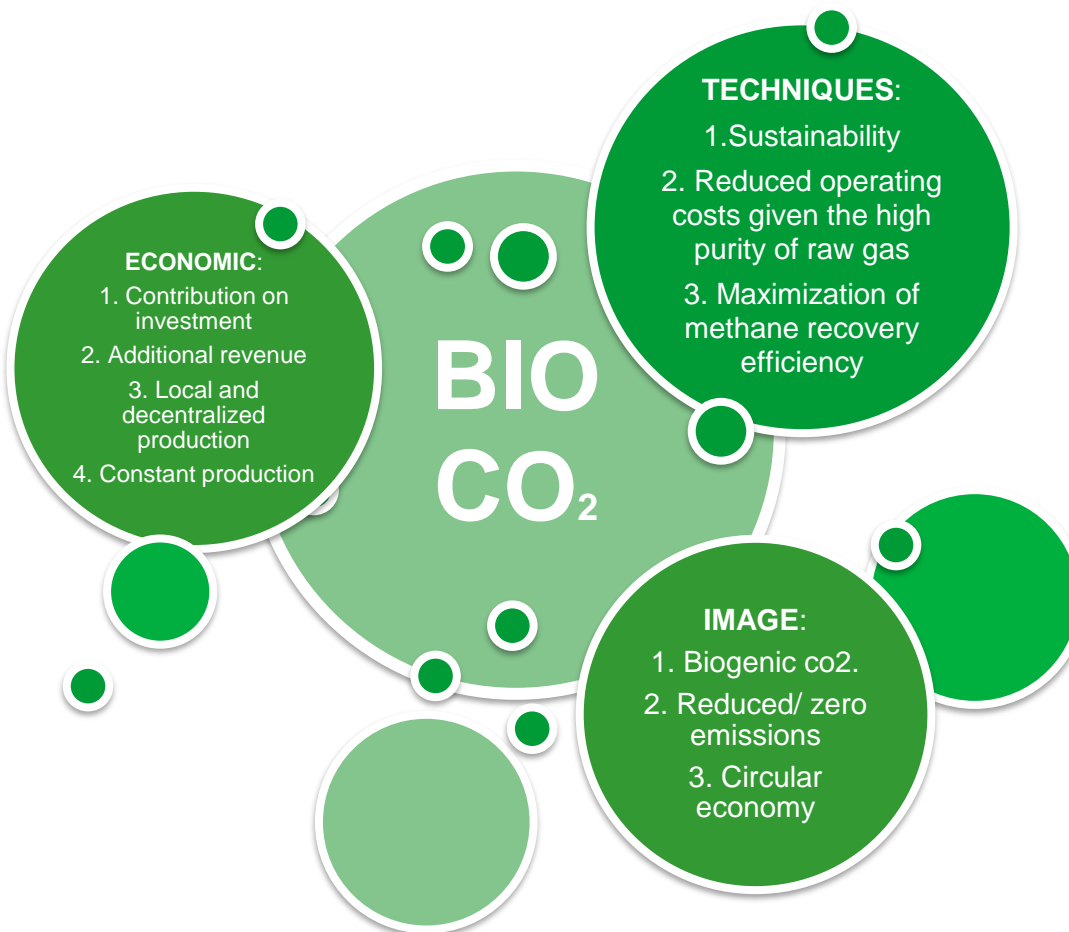
CO₂ Layout and Capacities



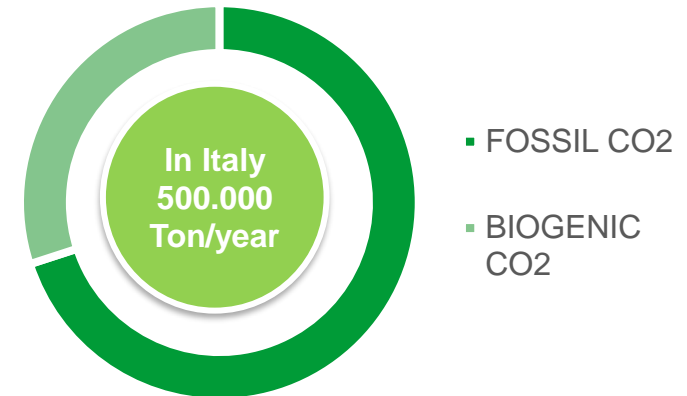
POS.	QUANT.	DESCRIPTION
01	1	RECOVERY CO2
02	1	CHILLER
03A/B	2	LIQUID CO2 TANK
04A/B	2	TRANSFER PUMP
05	1	CO2 ANALYSIS CABINET
NOTE: ⊕ EARTHING PLATE ▨ SERVICE AREA ● DRAIN		



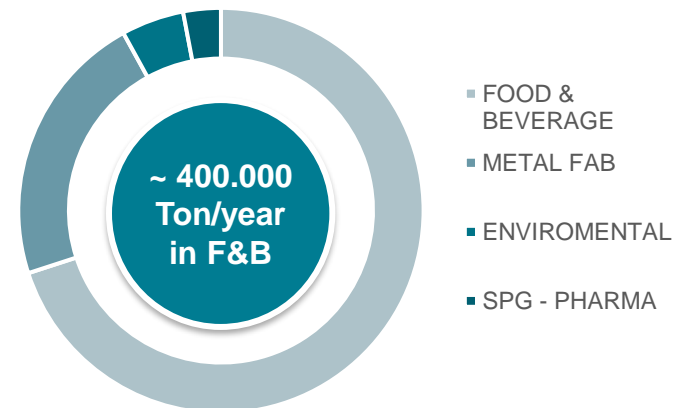
CO ₂ Standard Plant Size	Correspondent Biogas Upgrading Plant	Capacity
550 kg/h	250 Sm ³ /h biomethane	1 MWh
1000 kg/h	500 Sm ³ /h biomethane	2 MWh



PROVENANCE *



DESTINATION *



* Value to be understood as estimate by geographic area Italy



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