

CUBOGAS

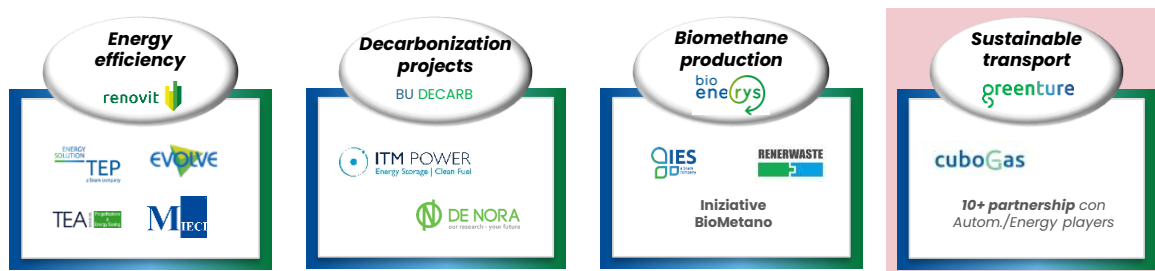
Compressors for Biomethane

cuboGas

05 Nov, 2025

Cubogas is an international leader in compression solutions, within Snam group

Snam, leading infrastructure operator in Europe, supports the development of new businesses fully dedicated to energy transition...



- Target of **+160 L-CNG refueling stations by 2027** (70 already operative)
- Award of **PNRR tender (15M€)** to build **#8 H2 refuelling stations**
- Ambition to handle **400+ kton LNG by 2026 in Midstream LNG sector**

...and is strongly committed to H2 economy development



Set up of **domestic ecosystem**



Production of **equipment**



R&D of **innovative technologies**



Strong focus on H2 development and, potentially, other gases (e.g. CO2)



Cubogas S.r.l., Greenture subsidiary based in **Cherasco (Piemonte)**, is a global leader in design, development and production of **technological compression solutions** for natural gas, biomethane and hydrogen



90+ years of experience in the field, with **4.000+ units installed** worldwide



International business with more than **80%** of sales abroad and 40+ countries served



Natural gas applications on several industries ranging from mobility, to biomethane and gas recovery / drainage

CuboGas history



GE Oil & Gas
Nuovo Pignone

- Developed the **first project of CNG compressor in 1929**
- Developed the **original concept of Cubogas vertical compressor in a complete and integrated package in 1984**
- Installed more than **2.000 compressors worldwide**
- Focus on compression technology for **CNG vehicles refilling**
- Developed also for **Oil&Gas applications**



Wayne

- **Acquired** the distribution business of **Nuovo Pignone in 2004**
- **Largest Provider of Alternative Fueling Solutions-CNG/LPG**
- Largest Provider of Alternative Fueling Solutions-CNG/LPG
- World's leading provider of **fuel dispensing solutions**
- **Expanded Cubogas vertical compressors sales worldwide**



- **Acquired Cubogas Project and Brand in 2012**
- **Italian market leader in CNG refueling stations**
- Developed a network of service companies offering **prompt and effective support**
- Further optimized the compressor design focusing on **product reliability**

Since the end of July 2018, Cubogas has become part of Snam Group

Cubogas main products: AVTN & BVTN solutions



A Series

POWER **37 – 110kW**

INLET PRESSURE **0.5 – 100 bar**

CAPACITY **100 – 1900 Sm³/h**

- Available with or without soundproof enclosure
- Available with or without internal storage
- 1 - 4 stages of compression
- Electric motor driven V-belt coupled
- Suitable for applications up to 110 kW
- Integrated power-control panel with touch screen interface.
- Integrated blowdown system
- Air-cooling for gas and oil compressor



1B Series

POWER **Up to 110kW**

INLET PRESSURE **20 – 200 bar**

CAPACITY **545 – 3750 Sm³/h**

- Available with or without soundproof enclosure
- 1 or 2 stages of compression
- Electric motor driven V-belt coupled
- Suitable for applications up to 110 kW
- Integrated blowdown system
- Air/water cooled
- Water jacket cylinder
- Integrated power-control panel with touch screen interface



2B Series

POWER **Up to 250kW**

INLET PRESSURE **0.5 – 100 bar**

CAPACITY **300 - 4000 Sm³/h**

- Available with or without soundproof enclosure
- Available with or without internal storage
- 1 - 4 stages of compression
- Electric motor driven V-belt or direct coupling
- Suitable for applications up to 250 kW
- Air/water cooled
- Water jacket cylinder
- Remote or integrated power-control panel with touch screen interface



4B Series

POWER **20 – 600kW**

INLET PRESSURE **1 – 100 bar**

CAPACITY **600 – 9800 Sm³/h**

- Available with or without soundproof enclosure
- 1 - 4 stages of compression
- Electric motor driven V-belt direct coupling
- Suitable for applications up to 600kW
- Air/water cooled
- Water jacket cylinder
- Remote or integrated power-control panel with touch screen interface

Cubogas main products: Pocket and Hydraulic compressors



Pocket

POWER 37 – 110kW



INLET PRESSURE 0.7 – 70 bar



CAPACITY 80 – 1600 Sm³/h



- **A-series compressor with integrated dispenser**
- Fully integrated unit
- Available with one or two fill hoses
- Internal storage 480 – 640 liters
- Not lubricated cylinders
- Very compact solution easy to install and maintain



Hydraulic

POWER 15 – 55kW



INLET PRESSURE up to 250 bar



CAPACITY up to 3000 Sm³/h



- **Specifically designed for daughter stations or special application**
- Available with or without soundproof enclosure
- Fully assembled and factory tested
- Inlet and outlet gas piping
- Electric motor / Gas engine
- Hydraulic unit
- Pneumatic circuit
- Liquid cooled
- Remote or integrated power-control panel with touch screen interface

CuboGas technical advantages

Cubogas products offer several important advantages that impact not only **product reliability** but also **Total Cost of Ownership**, such as:

- Low rotational speed → **lower wear** of components and longer maintenance intervals
- Non-lubricated cylinders → very **limited oil contamination**
- Best in class **Energy consumption**
- **Designed custom** according to your specifications
- Best in class **Remote control system** → for self-diagnosis, failure prevention, maintenance alerts and remote control even from your smartphone or our HelpDesk
- One **package solution** → our containers include everything needed by the compressor (cooling system, storage and electrical panel) and are very easy to install
- Originally inspired on API 618 standards for **heavy duty applications** and to work 24/7



Solutions for CNG refuelling for private/commercial fleets: **Fuelmakers technology**



Quick installation at the company's facilities for a convenient fleet refueling **directly at the deposit**



Suitable for every client, from single vehicle to commercial fleets



If integrated with a storage system, it evolves to a **fast-fill refuelling solution** (suitable for tractors, mid/heavy duty vehicles, etc.)



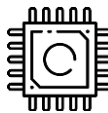
Overcomes CNG stations limits, guaranteeing a **capillary access to NG 24/7**



Eliminates losses of productive time commuting to the station, avoiding fuel waste and further polluting emissions



Autonomy in refueling in absolute **safety**



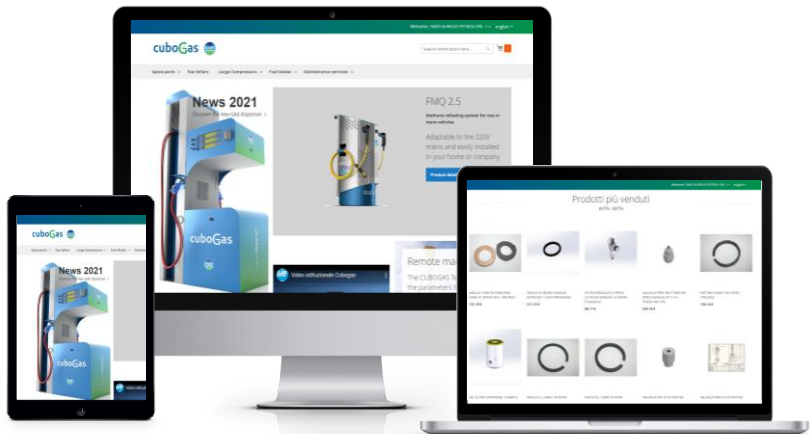
Electronic board designed for **augmented connectivity**

Not only products: after sale service & remote control solutions...

- **REMOTE CONTROL** - available for both customers and CUBOGAS SERVICE department, allows to access all system data regarding the compressor status: pressure, temperature, capacity, ...
- In case of alarm, **CUBOGAS SMART** allows to remotely perform the diagnosis, optimize the system parameters and organize the service at best



...and an exclusive spare parts e-commerce for a better aftersales experience



After Sales Service

Cubogas is committed to protect your **business continuity** with **remote control**, **maintenance planning**, **B2B Platform** and a wide range of international **after sales services** up to 24/7 leveraging on our **expertise** and **technical assistance network**.



Redundant systems

Strategic spares

Remote Control

24/7 servicing option

Maintenance
planning &
management

International
after-sales
network



Cubogas applications



CNG online station (public and private)

CNG stations directly connected to the pipeline



CNG daughter station (public and private)

CNG stations where the NG is delivered to the stations through trailers



Self-Refill Mobile Station & Trailer (g-MRU/e-MRU)

Mobile refueling unit that can reach end user's sites to refuel vehicles



Biomethane / reverse flow

Biomethane compression following its upgrade from biogas in treatment plant



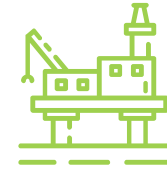
Gas gathering/ recompression solutions

Solutions to recover venting and to drain gases



LNG Boil off recovery

Cubogas package compressing natural gas coming from a LNG storage boil-off and delivering it to the pipeline



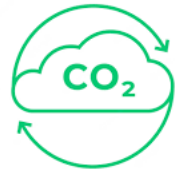
Industrial / Oil & Gas

Solutions for applications such as gas recompression in wells, powering turbines, underground storage and many others



Hydrogen

Cubogas technology for storage, distribution and application infrastructure (HRS included)



CO2

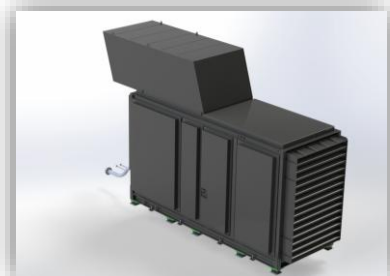
Specific solutions for carbon capture, usage and liquefaction

Cubogas: reliability and safety in gas compression

Solutions for pipelines and large gas infrastructures

Recompression for Maintenance

Mobile and stationary in plant



Inlet pressure (min.) **0,2 Barg**



Outlet pressure **Up to 250 Barg**



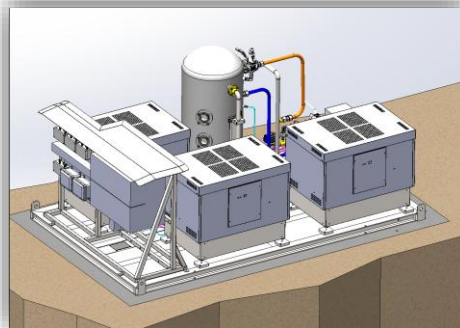
Capacity **variable up to 25000 Sm3/h**



Pipeline compression sites

Gas Recovery

recompression of systematic collected leaks



Inlet pressure **0.02-0,5 Barg**



Outlet pressure **up to 250 Barg**

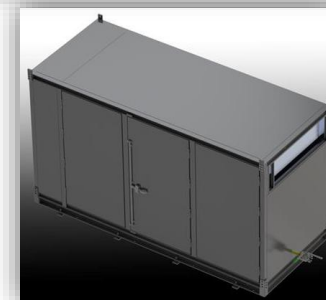


Capacity **2-60 Sm3/h**



Pipeline compression site

Reverse Flow



Inlet pressure (min.) **3-24 Barg**



Outlet pressure **Up to 70 Barg**



Capacity **variable**

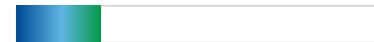


Biomethane plant

LNG Boil - Off Recovery



Inlet pressure **21 Barg**



Outlet pressure **70 Barg**



Capacity **3.500 Sm3/h**



On shore regasification terminal

First Cubogas H2 compressor

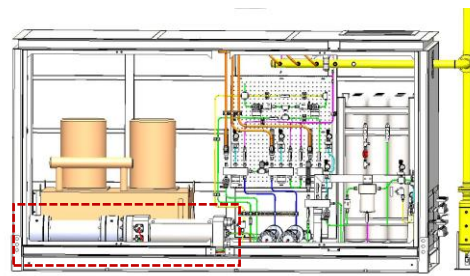
Electro Power System (2015)

Technical Specs

- Flow rate = 4,5 kg/h
- Rated Power = 18 kW
- Inlet pressure = 25 -35 barg
- Outlet pressure = 250 barg



Cubogas H2 compression main offering

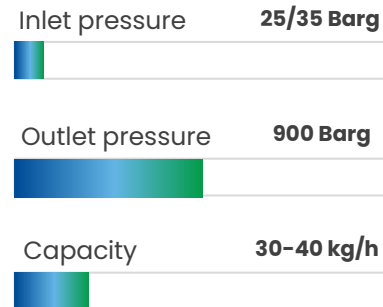
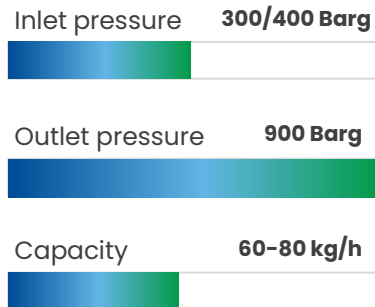


Booster

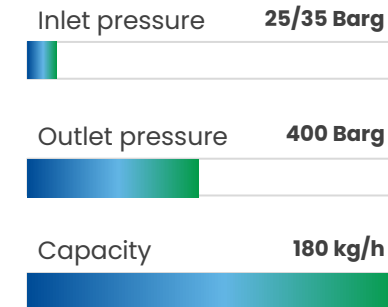
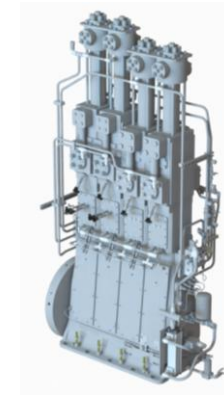


BiBooster

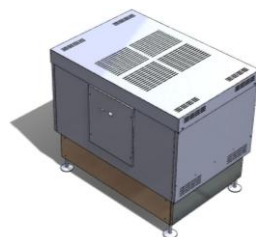
Main technical features



Main technical features



FuelMaker™ BigQ H2



Main technical features

Inlet pressure **20-300 mBarg**



Outlet pressure **350 Barg**



Capacity **1 kg/h**



H2 testing area

H2 testing equipment and facilities operative since mid-2022 for R&D activities...



...available to Cubogas partners in order to create a wide ecosystem and accelerate the development of H2 solutions

Power generation



Compressor for Dry Seal Gas Booster

Example of implemented application

Application

Maintaining correct pressure in dry turbine seals especially during start-up and shutdown phase.

Inlet pressure

30-65 barg

Outlet pressure

75 barg

Differential pressure

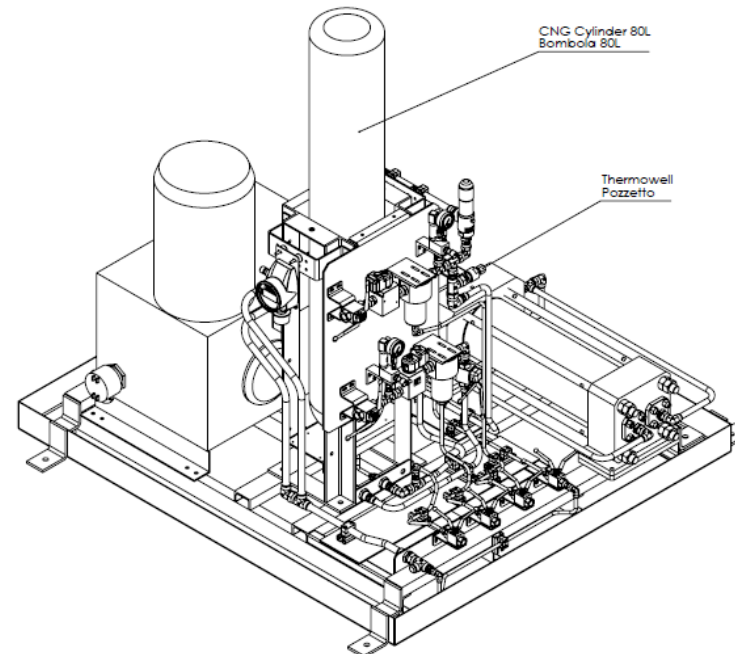
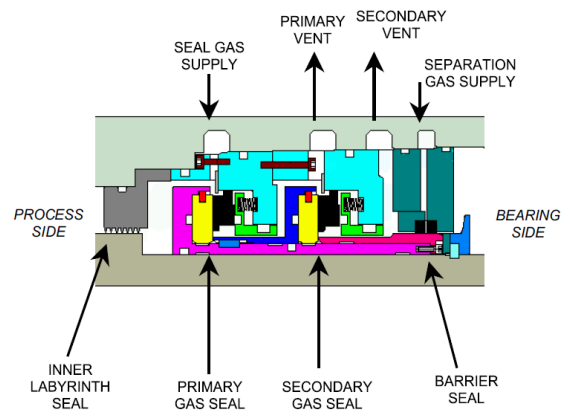
10 bar

Flow rate min

280 Sm³/h

Power

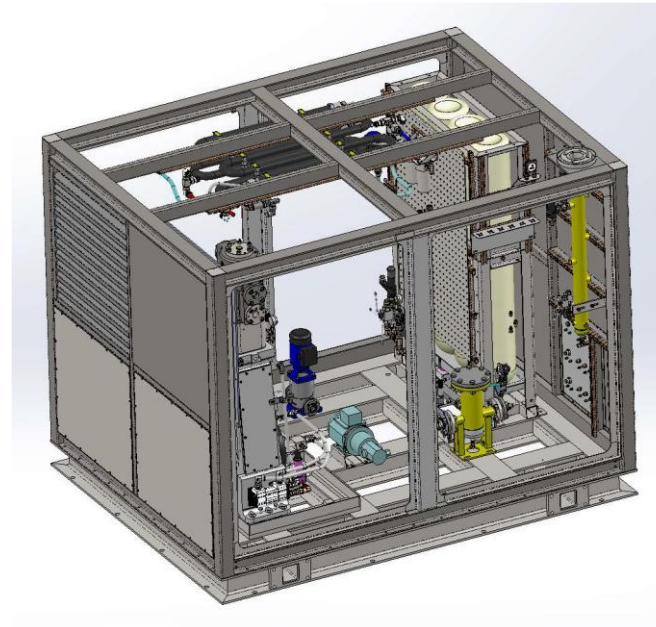
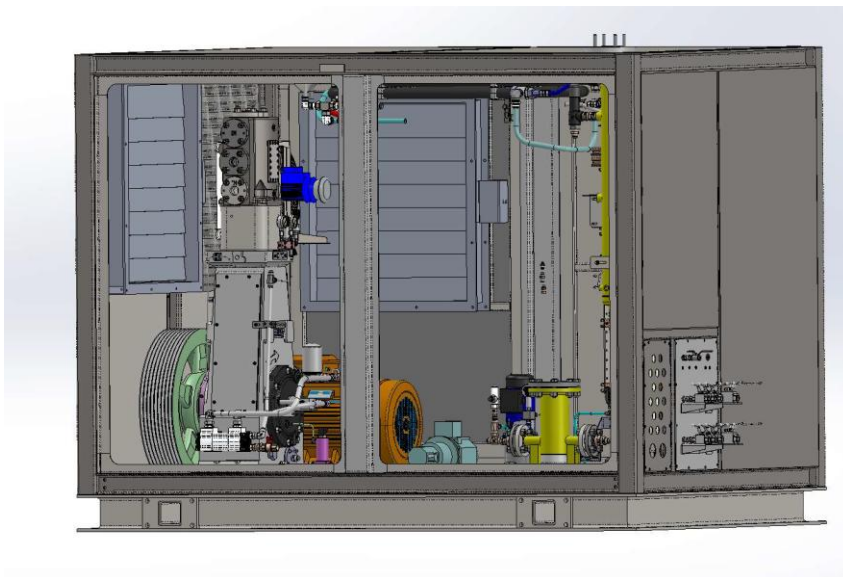
11 kW with INVERTER



CO2 compression

Example of compressor for micro-liquefaction plant

OPERATING PARAMETERS	MIN	NORMAL	MAX
Gas Inlet Pressure (barg)	12,5	13,5	14,5
Gas Inlet Temperature (°C)	15	25	35
Gas Outlet Pressure (barg)	28	29	30
Flow Rate (kg/h) (¹)	200	220	255
Gas Outlet Temperature (°C)	15 °C above ambient temperature, MAX		



Attention to continuous quality improvement



First mechanical test of each compressor body



Final load test for each compressor package according to the specific customer working conditions



Cubogas biomethane main offering

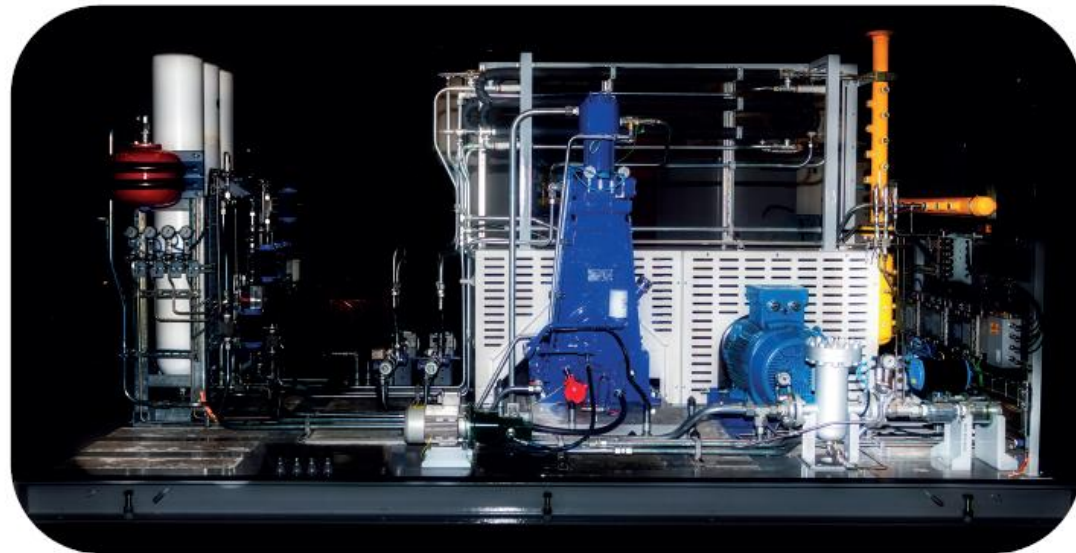
Biomethane Compressors

Recip. Compressors Full Range

Available in different configurations, they can process up to 10.000 scmh

Range of applications:

- **gas injection** in the grid
- **virtual pipelines** and **RNG filling** of vehicles and fleets.
- **nano-liquefaction**: the key component to transform methane into liquid LNG



BMJ internal view - basic configuration

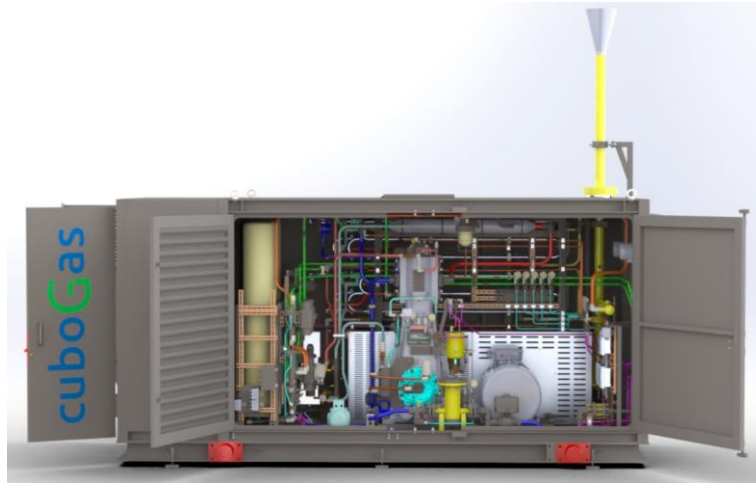
BMJ Range of products main features

- ✓ **Specifically designed for biomethane injection** up to 1000 scmh
- ✓ **Heavy duty solutions**
- ✓ **Low speed** (always below 800rpm) for maximum reliability
- ✓ Maximum **standardization and modular design** to minimize CAPEX and OPEX
- ✓ **Remote control** for predictive maintenance and quick fix of minor issues.

Main optionals and accessories:

- ✓ **2 Oil-Free solutions available:**
 - ✓ Specific filtering
 - ✓ API618 distance piece Type 2
- ✓ **Vent recovery system** for gas leakages
- ✓ **Sound-proof** option
- ✓ **Virtual pipeline configuration**
- ✓ **Advanced after-sales servicing** (up to 24/7 intervention within 4 hours)

Cubogas Solution DUAL OUTLET 2B3 – 500 Sm³/H – 110kW



Compressor capable of **injecting into the pipeline** and at the **same time feeding** a 2-level storage system for rapid **refuelling of vehicles** with 1 or 2 metrological dispensers (double hose).

- Capacity: 360 kg/h
- Power: 78 kW absorbed
- Internal storage 2 levels: 1200l
- Consumption: 0.217 kWh/kg
- Maintenance interval: 6000 h
- Comp. X supply work: 347 h/year
- Working comp. X injection: 8173 h/year
- T7 refill (200kg): <30 min.



Reverse Flow

Example of implemented application in the Italian pipeline

Integrated leaks recovery system

Maximum flow rate

500 Sm³/h

Minimum flow rate

0-100%

Working inlet pressure min/max

3 / 5 bar g

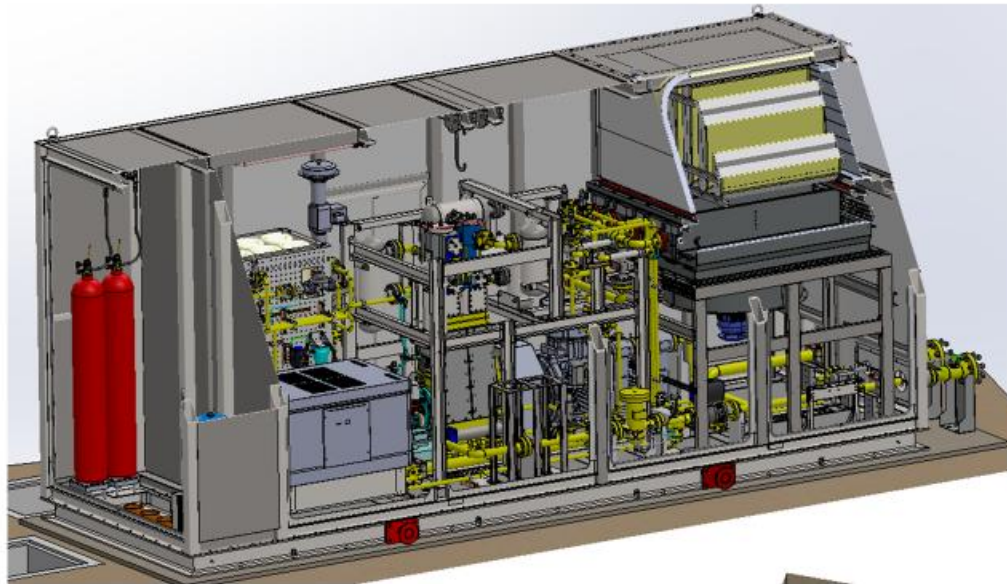
Working outlet pressure max

70 barg (1° fase)

26 barg (2° fase)

Main electrical motor

110kW





cuboGas

a Snam company

THANK YOU