



BTS

**BIOLOGY,
TECHNICAL ASSISTANCE AND AUTOMATION**



bts-biogas.com





BTS Biogas, an Italian company with 25 years' experience in the field of anaerobic digestion, provides reliable high-performance technological solutions for the biogas and biomethane market.

BTS Biogas, a pioneer in the anaerobic digestion industry, with **over 250 plants created worldwide**, has established itself at a **global scale in the development, planning, construction and maintenance of biogas and biomethane plants.**

In 2019, the company was acquired by **Bioenergy Devco LLC**, a **US company specialised in the development of anaerobic digestion facilities**, with an important portfolio of projects in a market that is rapidly expanding.

The union of the two companies has a strategic value since it amplifies market presence, favours the development of new projects and consolidates the value and know-how of the Group.

Today, BTS Biogas employs in Europe over 100 people, distributed between the headquarters in Affi (Verona), the office in Bruneck (Bolzano), and its companies in France, the UK. In 2021 the company has established a new branch in the USA.



5 locations

IT - FR - UK - US



25+

Years of experience



250+

Plants in the world



150+

Assisted plants



25.000 smq

Warehouse and
Logistics hub Laboratory

METAN^{lab}

200 smq

Laboratory



170.000+

Analyses carried out
per year



SERVICES

BTS Biogas has always been able to guarantee the **continuous operation** of plants by **minimizing service time** and keeping a plentiful supply of **spare parts in stock**.

BTS Biogas guarantees service on all plants, whether their own or those of other manufacturers, and works constantly on **improving and developing innovative solutions**.

Its **activities** and **services** are aimed at monitoring, ensuring, and maximizing the output of biogas plants. It is **essential to keep a plant in good shape**, with regular service visits and constant monitoring to guarantee the desired level of production.

The daily challenge of BTS Biogas is to maintain premium plant reliability, reduce service time to a minimum, and guarantee profitability and competitiveness.



Biology



Technical support



Automation

BIOLOGY

METAN^{lab} - The ideal partner for those working in the biogas industry

BTS has the largest laboratory specialised in BIOGAS plants in Italy. Its scientists have many years of experience in biological and economic optimisation gained in the field. The biology department is involved in the following:

- Carrying out, in its own laboratory, **all the types of analyses** necessary to optimise biological processes
- **Ensuring the stability** of the anaerobic digestion process
- **Maximizing the yield** of plants through optimal recipes and the use of MICRONUTRIENTS
- **Anticipating possible biological problems** while avoiding loss of production
- Determining possible inhibitions of microbiological processes and promptly intervening
- Providing an e-journal to customers

Our laboratory also provides fundamental scientific support in the design of plants, **simulating and studying the biogas production of new substrates over time**, of which there are no available literature data, or **complex recipes**, determining possible **inhibitions and/or synergistic effects** in the microbiological process.



BIOLOGICAL CONSULTANCY

When and why it's required

The **experience** and **know-how** BTS Biogas has gained in the field of anaerobic digestion allow it to confirm that monitoring the biogas plant is fundamental for achieving the desired results.

Whether it's a BTS Biogas plant, or a **plant built using other technologies**, the company can support the supervisor in stabilizing production and improving efficiency by providing innovative ideas and expert solutions while lowering the feeding costs.



It's a job carried out by our staff - made up of microbiologists, biotechnicians, and agronomists - together with the client, which begins with the collection of the information required to assess the condition of the plant and continues with the drafting of a **detailed report** and the relevant service options, **based solely on real needs**.

Biological consultancy is useful when:

- The biogas production is fluctuating;
- There is a noticeable change in the characteristics of the digestate (too runny or too solid);
- The quality or quantity of produced biogas changes;
- The amount of biomass needed to achieve the same output increases.

ADDITIVES RECOMMENDED BY METANlab

DESULFURIZATION



IRON MAX3
Iron hydroxide



IRON MAX
Iron chloride

ENZYMES



VISCOPRACT
Product adapted to emergency cases with floating layers



METHAPRACT
An enzymatic product for maintaining stability



ULTRAPRACT
An enzymatic product especially for use with high-protein recipes

MICRO AND MACRO ELEMENTS



My MICROmax

Customized mix of oligoelements for biogas production optimization.

CUSTOMIZED FORMULA STARTING FROM DIGESTATE ANALYSIS

Supplied in single-serving biodegradable packages, it has to be put in the digester every 7-14 days (based on the biologist's instructions), easily, cleanly, and quickly.



FOR MANURE BIOGAS PLANTS

Specific mixture for plants fed with high percentages of manure (pig, bovine)



FOR SILAGE BIOGAS PLANTS

Specific mixture for plants fed with high percentages of silage



FOR POULTRY MANURE BIOGAS PLANTS

Specific mixture for plants fed with high percentages of hen/broiler manure



FOR ORGANIC WASTE BIOGAS PLANTS

Specific mixture for plants fed with high percentages of organic waste



TECHNICAL ASSISTANCE

With a **surface area of over 3,500 m²** located in **Italy, France, the United States, and the United Kingdom** and **10,000 spare parts in stock**, the BTS Biogas service centers can not only guarantee quick service **365 days a year** but also enable the reduction of machine downtime caused by any emergencies.

The availability of technicians and technical components **24/7** ensures that any potential problems are **swiftly solved** and that **output is kept constant**. Quick service and regular planning of plant maintenance help you to uphold consistently high production standards.

In 2019, plants serviced by BTS Biogas operated with an **average output of 98%**, working for more than 8,590 hours per year. This figure demonstrates the high operational reliability resulting from the experience gained in **over 25 years of promptly handling** maintenance and service requests. In 2020, assistance was guaranteed for over 33,000 hours globally.

BTS Biogas guarantees safe field service in compliance with regulations and is supported remotely by the **monitoring systems** installed in our plants, which enable us to detect output, yield, and any anomalies.



**Plant monitoring 24 hours,
7 days a week**



Alarm management



**Service register
editing**



REVAMPING BIOMETHANE

With a wealth of experience, both in the construction and after-sales service of biogas plants, BTS Biogas is able to provide all-round solutions (technical assistance, automation, and biological consultancy) to lead your plant into a long and productive future as a biomethane plant.

- **Biological consultancy** to modify the recipe from primary to secondary biomass and use by-products
- **Technical and structural adjustments** (pre-treatments, tanks and covers, power expansions, etc.)
- **Biogas upgrading plants with or without CO₂ liquefaction**

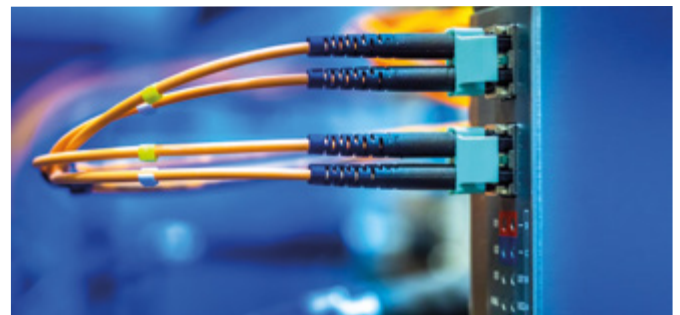


AUTOMATION

All plants covered by a service contract are **constantly monitored remotely**. This activity is carried out in accordance with precise standards of priority and seriousness, using a ticketing system that allocates service orders to the various departments.

Anomalies and alarms are managed with specific service procedures directly on-site or remotely.

The **Automation** department, in collaboration with the **Research & Development** and **Biology** departments, is constantly fine-tuning the plant software.



Europe

Americas

Japan

-  Plants
-  BTS Biogas Sites and Service



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