BIOPAC
BIOGAS PACKET SYSTEMS

CORPORATE BROCHURE



From Waste to Energy, From Resources to Value.

Engineering for biogas, biomethane and gas cleaning.
Integrated solutions with greenhouse, organic fertiliser and microalgae systems.

BİOPAC, is a Thor Grup brand.

We bring energy, environmental and agricultural technologies together, with an integrated engineering approach from resource assessment to system integration.

GAS & ENERGY SOLUTIONS

Engineering matched to your resource.

An integrated system approach from feedstock to product gas.



01

Biogas Systems

We assess livestock manure, food waste and suitable organic by-products within a complete process from feedstock reception to gas utilisation.

Reception & preparation • Anaerobic digestion • Gas storage & conditioning • Monitoring & automation



02

Biomethane & Upgrading

We combine pretreatment, CO_2 separation and product gas quality control to enrich methane in biogas. The membrane system is assessed according to gas composition and intended use.

Gas pretreatment & drying • Compression • Membrane separation • Product gas analysis

From farm-scale packages to existing plant improvements.

GAS CLEANING & DESULPHURISATION

The right gas quality. A reliable process.

Project-specific scrubber solutions for biogas and landfill gas.

We assess inlet gas flow, H_2S load and downstream gas quality requirements together. Biological treatment, moisture control, filtration and polishing, where needed, form a coordinated gas cleaning line.



İnegöl Landfill Gas Plant

3 scrubber kule

3,000 m³/h

5,000 → 0 ppm H_2S



Bergama Landfill Gas Plant

2 scrubber kule

1,500 m³/h

4,500 → 0 ppm H_2S



Üregen Biogas · Gas Cleaning

2 scrubber kule

800 m³/h

12,000 → 0 ppm H_2S

Values are the project performance data presented on the website. System design depends on gas load, operating conditions and intended use.

RESOURCE RECOVERY & AGRICULTURAL INTEGRATION

The value of one output

begins in another process.



Greenhouse Climate Systems

We consider temperature, humidity, air movement and heat supply together. Heating, ventilation and automation are designed for the crop, greenhouse and local climate.

INTEGRATION: Matching available plant heat with seasonal greenhouse demand.



Organic Fertiliser Systems

We separate digestate into solid and liquid fractions and assess analysis, processing, storage and intended utilisation together.

SCOPE: Separation, solid product preparation, liquid fraction management and nutrient recovery.



Microalgae Systems

Culture selection, cultivation, monitoring and harvesting are planned around the intended biomass use. We assess integration of suitable CO_2 and nutrient streams.

APPROACH: Scale based on gas and water quality, nutrient balance and pilot trial results.

Every connection is assessed for each project against resource quality, capacity, analysis and utilisation requirements.

ON-SITE ENERGY FROM HOTEL WASTE

Turn kitchen waste into new value.

Match your hotel’s organic resources with its energy needs.



FOOD WASTE → BIOGAS → COOKING & HOT WATER

We recover value from source-separated food and kitchen waste in a compact biogas system. After cleaning and pressure control, the gas can be used with suitable burners for cooking, hot water and heating.

System Scope

Waste reception and foreign material control
Size reduction, homogenisation and feeding
Controlled anaerobic digestion

Project-specific assessment

Daily waste quantity and seasonal occupancy
Existing gas consumption and hot water demand
Site, odour control and digestate management

Capacity and gas production depend on waste analysis and demand profiles. Existing boilers and kitchen appliances require separate biogas compatibility assessment.

SMALL-SCALE FARM BIOGAS

Your farm’s resources. Energy for your farm.

Compact solutions for manure management and on-site energy, with scale assessed for each project.



MANURE → BIOGAS + DIGESTATE

We assess manure from small and medium-sized livestock farms through a biogas system suited to daily operations. System scale depends on herd size, collectable manure and energy utilisation objectives.

Compact system approach

Manure collection and premixing
Heated, controlled digestion
Gas storage, cleaning and utilisation

Farm-specific integration

Assessment of hot water and heating needs
Solid–liquid separation ve digestat depolama
Analysis-based agricultural application plan

Manure quantity, dry matter, biogas potential and site conditions determine capacity. Digestate use as fertiliser depends on analysis and suitability assessment.

OUR BIOGAS REFERENCES

Engineering in the field.

Three biogas projects with a combined capacity of 8.4 MW.



MALATYA

Tohma Biogas

3.2 MW



ANKARA

Üregen Biogas

3.2 MW



KIRŞEHİR

Etaş Biogas

2 MW

Selected biogas power generation plants from the BİOPAC project portfolio.

OUR APPROACH & CONTACT

Let’s develop your project together.

From initial data to a project-specific system scope.

01 Resource & objective

Defining feedstock, gas, heat or product objectives.

02 Analysis & feasibility

Capacity scenarios and technical feasibility.

03 Process & equipment

Defining system boundaries and integration points.

04 Project-specific scope

Defining the engineering, equipment and implementation scope.



Selman Akkuzu

General Manager · BİOPAC

“We assess every project against feedstock characteristics, site conditions and operational objectives. Our priority is to develop needs-based solutions with compatible processes and practical operation.”

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