AGRISELECT®

Our multi-talented system up to 265 kW_{el}

PLANTS
Efficient. Innovative. Sustainable.

COMPONENTS
Proven. Robust. Reliable.

UTILISATION
CHP. Biomethane. Digestate.

SERVICES
Support. Advice. Expertise.

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Member of the German Biogas Association

aK agriSelect INTL

bestore . Group

agriKomp GmbH: Certified acc. to ISO 9001

Follow us on:

agriSelect®
– our multi-talented system.

CLOSED LOOP ECONOMY IN AGRICULTURE

Simply explained, circular economy means that raw materials or products are used for as long as possible. For example, waste should be avoided through reuse or repair. If this is not possible, the products can also be recycled. But how can this circular economy be applied in agriculture?

Let‘s take a fictitious farm of the Doe family as an example. 250 cows are kept on this farm and the fodder for the cows is grown on the farmland so that they can supply themselves.

Manure and slurry from the cows can later be spread on the fields as natural fertiliser to give the soil back the nutrients it needs. However, if the farm manure is digested in a biogas plant beforehand, important energy opportunities can be used!

Additional greenhouse gas emissions from livestock farming are also reduced by about 90 percent if the manure produced is quickly transferred to the gas-tight biogas plant.

DID YOU ALREADY KNOW?

„With our 100 kW_{el} biogas plant you can already avoid 1,150 tonnes of CO_2, produce 447,000 m^3 of biogas, 832,000 kWh of electricity and 945,000 kWh of heat*. Our plant thus supplies 230 three-person households with electricity and 54 with heat.**“

* Feedstock acc. to average German dairy farm. (cattle manure & slurry, food leftovers)
**Average energy consumption German three-person household with 120 m^2.

BIOGAS – THE OPTIMUM SOLUTION

After much deliberation, the Doe family wants a small-scale biogas plant for their farm. By using manure and slurry in a biogas plant, emissions such as carbon dioxide and methane can be avoided. It can also generate a new source of income for the farm.

In principle, a biogas plant works like this:
In the airtight digester of a biogas plant, the natural decomposition of the substrates, e.g. energy crops, slurry or manure, begins with the help of various microorganisms. This produces biogas and what remains is the digestate.

The produced multi-talent „biogas“ can be converted into electricity, heat, bio natural gas or fuel. In addition, the digestate can be used as high-value fertiliser, thus closing the natural nutrient and humus cycle. By digesting the farm manure in the biogas plant, its methane emission is reduced to a minimum.

ALL JUST CRAP?

With manure and slurry in the biogas plant, not only energy can be produced, but also greenhouse gases can be reduced.

The agriSelect® can be operated with 100 % liquid manure. By upgrading the agriSelect® with Vielfrass® solid feeder and Paddelgigant® paddle agitator, it can also be operated with solids (e.g. energy crops, agricultural residues, etc.) and even with 100 % manure.

The anaerobic digestion of existing farm manure is a perfect example of the closed-loop economy in agriculture.

agriSelect®
– Seizing opportunities for the environment

BIOENERGY FOR THE FUTURE

The future of biogas goes hand in hand with government support. In Europe, thousands of farmers are already #heroes of the energy transition by building a biogas plant.

From a political point of view, an expansion of this energy production is desired, more than ever before. Reducing the burden on the environment, promoting renewable energies, achieving the expansion targets and becoming independent - these are the goals of our future.

OBJECTIVES FOR EXPANSION & FARM MANURE DIGESTION

By 2030, regional renewable energy should and must be used significantly more in Europe in order to drive forward the energy transition and achieve the expansion targets. Biomethane and biogas are becoming more and more important and small-scale manure plants are being brought into focus, as these concepts make further use of existing residual materials and exploit the maximum potential.

This means that the way is also being cleared for smaller farms. This creates jobs and exploits regional opportunities.

Would you also like to take your chance?

CAPACITY

The agriSelect® plant system is available from 75 up to 265 kW_{el}.

Model 75 – 100 kW_{el}
The classic on-farm biogas plant, of which almost 200 plants are currently in operation. Since 2023, we have been equipping the „small“ agriSelect® with our BGA 095 ETA with the latest SCANIA 5-cylinder in-line engine DC09.

Model 100 – 150 kW_{el}
The medium-sized agriSelect® plant with the large model of our BGA 095 ETA. With our BGA 095 ETA, a sophisticated biogas plant is joined by a very efficient CHP unit: with an electrical efficiency of up to 40.7 %, our agriSelect is unparalleled in this performance range.

Model 150 – 265 kW_{el}
Our top model, the BGA 136 ETA, utilises the biogas produced reliably and efficiently (electrical efficiency of up to 43 %) in our largest agriSelect® model. Well over 50 plants are already in operation. An agriClean 150 is used for gas purification.

YOUR BENEFITS AT A GLANCE!

- 3 basic models cover a plant capacity from 75 up to 265 kW_{el}
- Equipped with proven agriKomp components
- Wide range of input materials possible
- Individually configurable
- Modular design
- Many additional packages and options
- High degree of standardisation
- Short construction time
- Pre-fabricated containers
- Ready-assembled modules
- Appealing design

AGRISELECT®

DOUBLE MEMBRANE ROOF

Gas storage

VIELFRASS®

Solids feeding system

FORMPROTECT®

Tank building system

AGRISELECT

CHP

CHP unit in a concrete container

PADDELGIGANT®

Paddle agitator

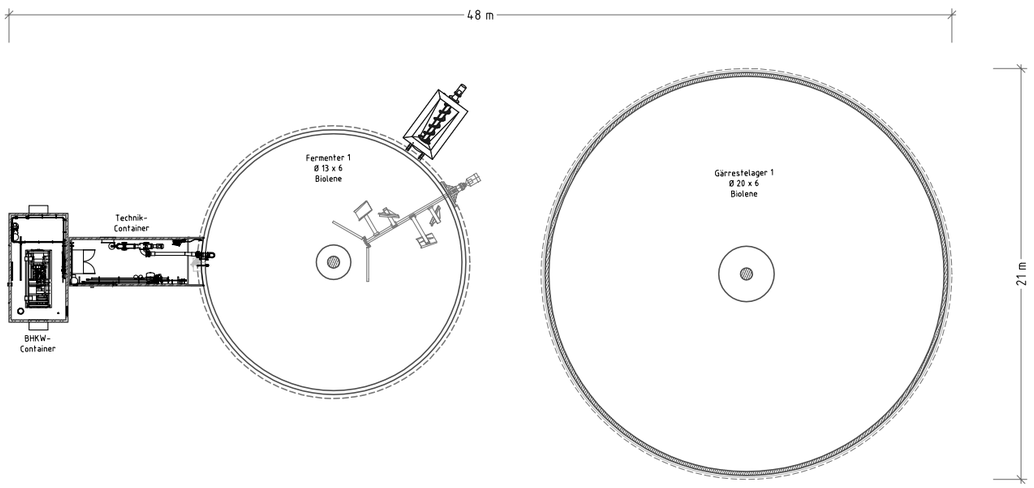
AGRISELECT – DOE FAMILY

Plant type:	agriSelect®
Installed capacity:	150 kW_{el}
Feedstock:	Cattle slurry and manure
Specials:	The plant is fed only with manure and slurry from its own 200 cows as well as grass silage / fodder residues

„We have 200 cows on our farm. That is 25 t of manure / slurry and an additional 2.5 t of grass silage / fodder residues per day, which we feed into our biogas plant. This gives our plant an output of 150 kW_{el}.

We apply the digestate to the farmland again. In addition, we directly heat our residential house and our buildings on the property with the energy generated. This saves us over 10,000 litres of heating oil a year. And we have found a second mainstay for our business.“

agriSelect®
– our models at a glance



BASIC PLANT	75 kw$_{el}$	100 kw$_{el}$	150 kw$_{el}$
CHP BGA095 ETA model 100 in concrete container	✓	✓	–
CHP BGA095 ETA model 150 in concrete container	–	–	✓
Technical container in concrete construction	✓	✓	✓
Tank construction digester: Formprotect®	✓	✓	✓
Tank construction digester: accessoires ■ Temperature measurement, level monitor, sight glasses	✓	✓	✓
Gas storage Biolene® ■ incl. fill level measurement, over/under pressure safety device	✓	✓	✓
Gas storage double membrane ■ incl. fill level measurement, over/under pressure safety device I 1/4 shere	O	O	O
Active gas cleaning "agriClean"	✓	✓	✓
Gas flare automatic, monitored	✓	✓	✓
Condensate return	✓	✓	✓
Biological low-pressure desulphurisation	✓	✓	✓
Gas pipe system	✓	✓	✓
Compressed air system	✓	✓	✓
Fully automated heating system	✓	✓	✓
District heating module	O	O	O

Pre-pit	75 kw$_{el}$	100 kw$_{el}$	150 kw$_{el}$
Tank connection for existing pre-pit	O	O	O
Pumps			
■ Screw pump	O	O	O
■ Centrifugal pump with mixer nozzle	O	O	O
Substrate pipe I Ø160	O	O	O

Digester	75 kw$_{el}$	100 kw$_{el}$	150 kw$_{el}$
Tank			
■ Ø 13 m	✓	✓	✓
■ Ø 16 m	✓	✓	✓
■ Ø 18 m	–	O	O
Tank height I 6 m	✓	✓	✓
Tank installation depth			
■ 1 m	O	O	O
■ 2.5 m	✓	✓	✓
Leakage detection I full-featured I 1,0 mm	O	O	O
Insulation I Floor	O	O	O
Wooden ceiling I rafters and wooden planks	O	O	O
Heating			
■ Metal composite pipe 16 circles each 2 turns	✓	✓	–
■ Metal composite pipe 24 circles each 2 turns	–	O	–
■ Metal composite pipe 32 circles each 2 turns			✓
Feeding system			
■ Vielfraß® ECO I 5 m³	O	O	O
■ Vielfraß® ECO I up to 13 m³ – with 3rd & 4th extension ring	O	O	O
■ Vielfraß® Top I 7 m³ without discharge container and platform	O	O	O
■ Vielfraß® ECO I 31–51 m³ with discharge container		O	O
Agitators			
■ Submersible mixer I 1 pcs.	✓	✓	✓
■ Paddelgigant® I 1 pcs.	O	O	O
Overflow	✓	✓	✓
Substrate pipe I Ø 160 m	O	O	O

Caption: ✓ Standard O Option – not available

Our references speak for themselves.

FOLLOW THIS LINK TO THE PLANT-VIDEO

A Josef Wutz
Germany

Plant type:	agriSelect®
Commissioning:	2018
Inst. Capacity:	75 kW_{el}
Operator:	Family business with 180 cows
Specials:	The plant runs 100% on cattle manure & slurry

C Marco Hansen
Germany

Plant type:	agriSelect®
Commissioning:	2022
Inst. Capacity:	100 kW_{el}
Specials:	A slurry only plant without a solids feeder and with the new technology of the screwed double membrane roof.

C GAEC de Raymiluc
France

Plant type	agriSelect®
Comissioning:	2018
Inst. Capacity:	195 kW_{el}
Specials:	Utilisation of the farm's catch crops and covered storage with gas recovery.

B Kocher
Germany

Plant type:	agriSelect®
Comissioning:	2019
Inst. Capacity:	75 kW_{el}