

COCCUS® Farm 75 kW

Small Biogas Plant for Livestock Farmers



Fig. similar

COCCUS® Farm 75 kW



The COCCUS® Farm 75 kW plant allows even small farms to create a secondary source of income.

COCCUS® Farm 75 kW: Small Plant, Big Opportunities

The new small plant concept from Schmack Biogas - ensuring the future of your business

Gain independence!

The production of biogas with liquid and solid manure is well worth it - also when done on a small scale. The new small biogas plant from Schmack Biogas enables even small agricultural operations to make a profitable entry into biogas production. For you, this means opening up an additional source of income and creating new opportunities for your business.

Top quality - excellent value for the money

With the COCCUS® Farm 75 kW, we provide a sophisticated solution in the lucrative 75 kW class. At a fair price! You also get high quality Schmack technology. The proven components are manufactured in-house or by other reputable and reliable manufacturers. The smooth operation of your plant is thus ensured. The benefit for you: minimal work required - leaving you time for your other business activities.

Profitable with liquid and solid manure

The small plant concept is particularly lucrative when using a high concentration of liquid and solid manure. This concept is designed to meet all the needs of small livestock farms. In addition, by using a smart heating concept, you can reduce your own energy costs and/or generate additional revenues.

Benefits:

- Greater independence from electricity, heating, fertiliser and producer prices
- Development of promising future-oriented opportunities for your business
- Use of well-proven Schmack technology
- Manageable investment costs, low raw material costs
- Economic benefits through heat recovery (e.g. for barns, washing water, residential buildings)
- Low space requirements



Reliable Technology Provides High Yields

COCCUS® Farm 75 kW - the powerful plant for your business



System container
Fig. similar



Fig. similar

The COCCUS® Farm 75 kW provides well-proven Schmack Biogas technology. It is characterised by high energy efficiency and extremely low energy consumption. The plant consists of the digester unit (round digester made of reinforced concrete) and a system container with a 75 kW cogeneration (CHP) system. This covers all the control and power generation components that are required.

High gas yield, high availability: The digester technology

The COCCUS® round digester has a volume of 1,200 m³ and also serves as a gas storage tank. This digester is ideal for the use of high proportions of liquid manure. The digester is fitted with our compact REMEX® agitator as standard. The horizontal and vertical mixing reliably prevents the creation of sinking and floating layers. High gas yields and high availability are thus ensured.

System container

The biogas extracted from the substrates is converted into electricity and heat using a 75 kW cogeneration plant (CHP). The BIOWATCH® Control unit monitors and

controls the operation and safety of the plant. All the relevant data can be visualised, stored and forwarded to the EUVIS® control centre (Option Visu L / XL). Rapid and competent assistance can thereby be provided at any time in the case of a failure.

High level of equipment even in the attractively-priced standard model

Even in its low-cost standard configuration, the COCCUS® Farm 75 kW offers a impressive range of equipment. Biogas desulphurisation, using activated charcoal, and also active gas cooling are included as standard. This reduces unnecessary damage to the CHP and increases the plant's lifetime. The product can also be enhanced by additionally available special equipment, and services such as commissioning and biological assistance - thus guaranteeing the successful and smooth running of your plant.

The benefits at a glance:

- Comprehensive equipment - even in the standard configuration
- Proven Schmack technology
- High efficiency

COCCUS® Farm 75 kW: Data and Facts

Technical details*	
Dimensions	
Round digester	∅ 14.00 m; height 8.00 m
CHP container [L x W x H]	6.00 m x 2.45 m x 3.00 m
Minimum area requirement	450 m ²
Digester	
Digester volume	1,200 m ³
Digester cover	either EPDM with central support or double membrane roof ²⁾
Agitator	REMEX® paddle agitator
Drive power agitator	7.5 kW
CHP	
Motor type	4 cylinder asynchronous
Electrical efficiency ¹⁾	39.50 %
Thermal efficiency ¹⁾	44.70 %
Pump technology	
Pump type	Progressive cavity pump
Power consumption	3 kW



System container with digester
Fig. similar

You can make better use of your charge materials with the COCCUS® Farm 75 kW

The following assumptions were made when creating the table:

- Liquid manure yield per livestock unit (LSU): 20 m³
- CHP load: approx. 90 %

Possible substrate mix (table of standard values) *			
	DM content	100% cow manure	90% cow manure 10% solid manure ³⁾
Cow manure in m ³ /a	8 %	12,000 (approx. 500 LSU)	8,000 (approx. 320 LSU)
Solid manure in t/a	24 %	-	1,000

¹⁾ pursuant to manufacturer figures

²⁾ double membrane roof as a special cover for an additional price (see page 6)

³⁾ only in connection with the dosing station option

* Subject to errors, misprints and amendments. The figures were those known at the time of printing.

List of Components and Features

Why purchase a plant from Schmack?

For us, a concrete structure means that...

- Concrete
- Floor insulation
- Leakage film

are included

For us, assembly means...

- Complete assembly of all the ordered components
- No provision of construction staff necessary
- Construction site equipment such as cranes and scaffolding included

Round digester COCCUS® 1200

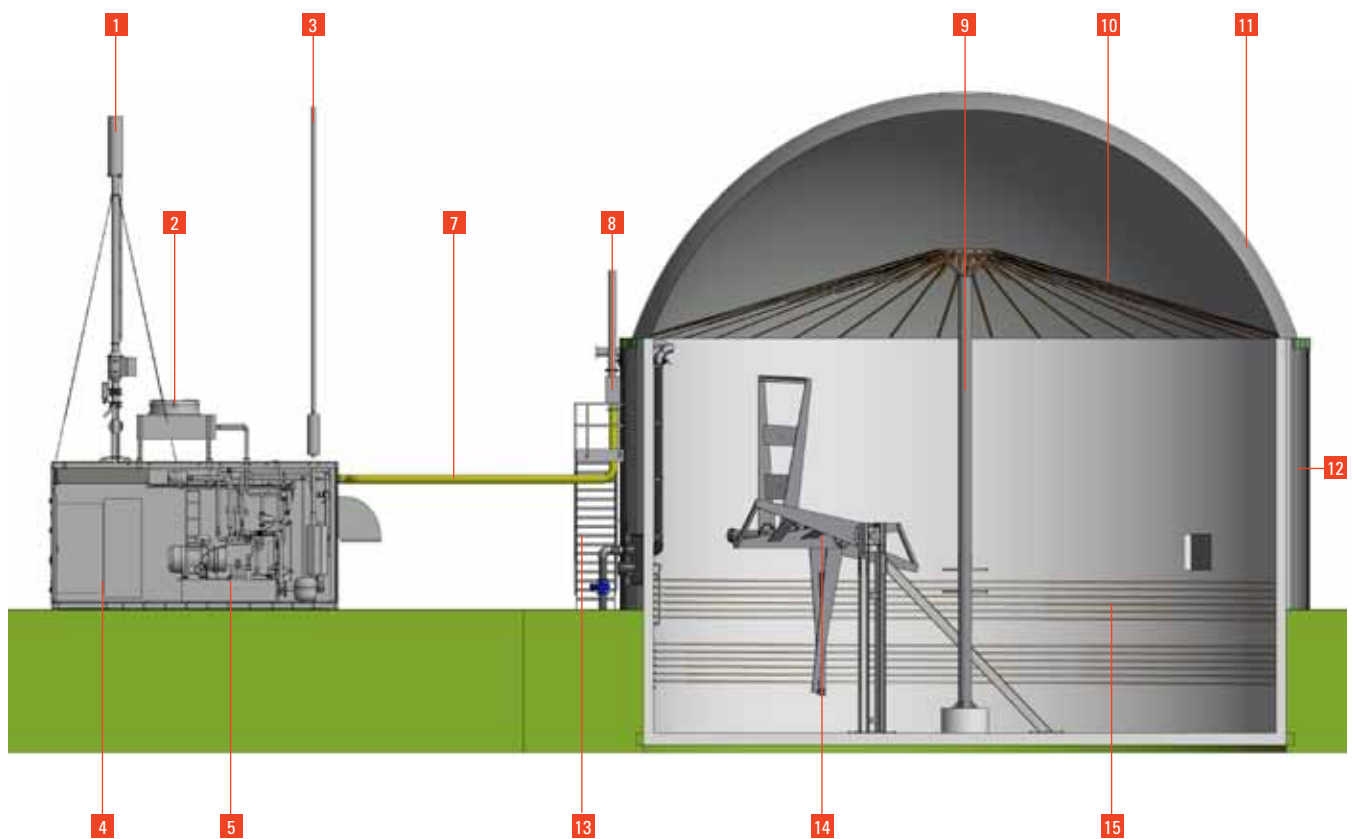
Concrete structure 14.00 m x 8.00 m / 2.50 m beneath ground level	✓
Floor insulation	✓
Leakage detection	✓
Trapezoidal sheet cladding and insulation	✓
REMEX® paddle agitator	✓
Overpressure/underpressure safety device	✓
Viewing window	✓
Underpressure switch	✓
Substrate level gauge (radar)	✓
Temperature measurement technology	✓
EPDM - gas storage with central support and braces	✓
Core drilling and connecting plates	✓
Composite pipe heating in container	✓
Substrate lines in the digester	✓
Progressive cavity pump	✓
Steps and platform on COCCUS® 1200	■
Double membrane roof - gas storage	□
Wooden roof structure for biological desulphurisation	□
System container 75 kW	
Steel container 6.00 m x 2.45 m x 3.00 m	✓
75 kW CHP / 4 cylinder	✓
Gas blower	✓
CHP switchgear	✓
Supply air and exhaust system	✓
Heating and emergency cooling system	✓
BIOWATCH® S plant control unit	✓
Heating distribution to the digester	✓
Gas detection and fire alarm system	✓
Automatic gas flare on the container roof	■
Substrate flow meter	■
Gas cooling and activated carbon - desulphurisation	■
Visualisation VISU L	□
Gas analysis device	□
Gas flow meter	□
Air input dosing for biological desulphurisation	□
Other services	
Detailed design / engineering	✓
Installation of piping between the supplied components	✓
Cabling/wiring of the supplied components	✓
Complete assembly of the supplied components	✓
Documentation	✓
Site equipment (cranes, scaffolding etc.)	■
PASCO® dosing station incl. accessories (high conveyor systems, weighing systems, etc.)	□
Connection to an existing manure storage / to an existing final storage	□
New manure storage / gastight final storage	□
Components for expansion of manure storage / gastight final storage	□
Approval planning	□
Commissioning	□
Biological support	□
Maintenance contract	□
Transmission to EUVIS® master display (only in connection with VISU L)	□

Key:

- ✓ Standard
- Special configuration at no additional cost
- Special configuration at additional cost

Everything at a Glance

Structure of the COCCUS® Farm 75 kW



Structure of the COCCUS® Farm 75 kW

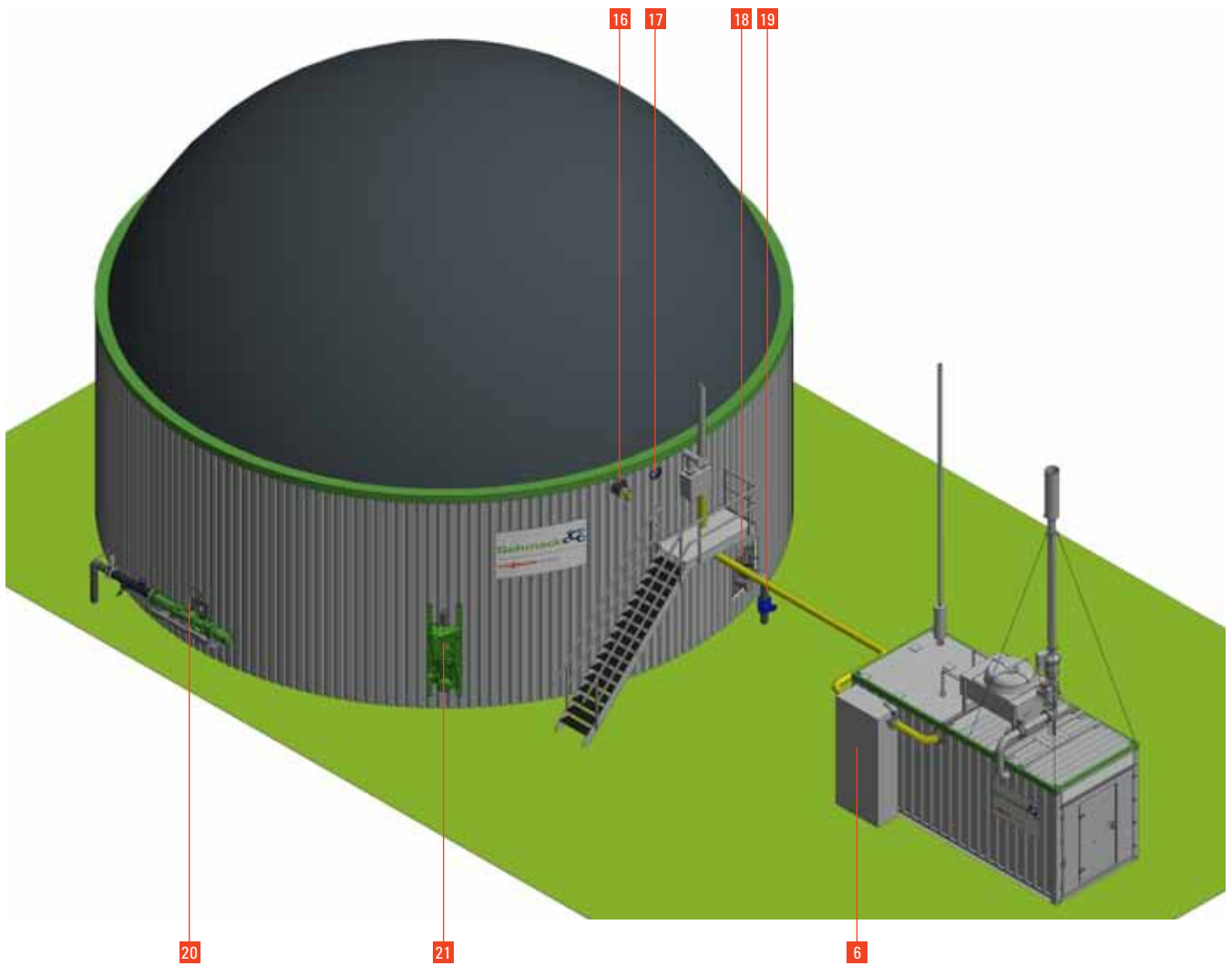
System container

- 1 Automatic gas flare
- 2 Emergency cooler
- 3 Exhaust pipe
- 4 System and motor control
- 5 CHP 75 kW
- 6 Gas cooling and desulphurisation

Round digester

- 7 Gas pipe
- 8 Overpressure/underpressure safety device
- 9 Central support column
- 10 Braces
- 11 Gas storage
- 12 Insulation and facade
- 13 Steps and platform
- 14 REMEX® agitator
- 15 Digester heater
- 16 Radar level gauge
- 17 Sight glass

- 18 Connecting plate
- 19 Substrate flow meter
- 20 Progressive cavity pump
- 21 Geared motor



**Extensive equipment,
wide range of optional extras**

A precise radar level gauge, automatic gas flare, connection plates (instead of shaft lining and element sealing) as well as steps and railings are available even in the standard version of the COCCUS® Farm 75 kW. There is also a wide range of special equipment available, such as the optional VISU L visualisation or a gas analysis device. If you need assistance with the permit application planning or commissioning, we can offer these services as well.

CHP and appliance room combined

The system container includes the engineering room and the CHP. This is prefabricated and tested for safety in the factory and delivered ready for use. The standardised modular construction means that the interfaces are perfectly aligned with each other.

Powerful agitator technology

The continuous and bacteria-friendly blending resulting from the slow stirring provided by the REMEX® agitator ensures complete mixing of the substrate and thus guarantees the highest possible biogas yield.

The Company



Schmack Biogas

Schmack Biogas is one of the leading German suppliers of biogas plants. The company was founded in 1995 and has been part of the Viessmann Group since January 2010. It provides services in the areas of project development and plant construction, as well as servicing and operational management, under the brands Schmack, BIOFerm and Carbotech, making it one of the few complete service providers in the sector. In addition to technical support, the company provides a comprehensive microbiological service.

Viessmann

The Viessmann Group is a leading international manufacturer of heating technology systems. Founded in 1917, the family company has around 11,600 employees with group sales of EUR 2.2 billion. Viessmann has an international presence with 22 production companies in 11 countries, sales companies and representations in 74 countries and 120 sales branches worldwide. 56 percent of sales are generated abroad.

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