



Special constructions in steel and stainless steel

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Your partner
for stainless steel
in biogas plants!

Gas processing

Lower operating costs
by using desulfization



Your advantages:

- ⊗ Compact/modular design
- ⊗ Reduce CHP wear and tear
- ⊗ Increase efficiency
- ⊗ Extended maintenance intervals
Operator-friendly handling
- ⊗ Enables custom combinations
- ⊗ Low pressure loss due to large cross-section
- ⊗ Can be integrated into any plant
- ⊗ Powerful self-cleaning feature based on upright design

We offer:

- ⊗ Reliability
- ⊗ Sustainability
- ⊗ Efficiency
- ⊗ Flexibility

Our service:

- ⊗ Individual consultation
- ⊗ Custom solutions
- ⊗ Optional "all from one source"
- ⊗ In-house design, production, and assembly

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Application

The first step of gas processing is gas cooling. In this cooling process, the biogas is cooled down to a temperature which is set at the refrigeration unit. As a result, the biogas condenses on the walls of the cooling pipes. The cooling medium is a mixture of water and glycol, always kept in a controlled temperature range by the refrigeration unit. This condensation leads to humidity precipitating from the gas, as humidity would damage the activated carbon.

After the gas cooling step, the biogas is re-heated to a set temperature so that the relative humidity is able to reach a level at which the activated carbon can react with it. After heating, the gas flows through the activated carbon container from bottom to top. While flowing through the container, a chemical process leads to unwanted materials such as sulfur being absorbed by the activated carbon. After having flown through the activated carbon funnel, the gas is ideally transferred to the CHP directly.

Technical data

Size (m ³ /h)	Cooling power (KW)	Connection (DN)	Activated carbon volume (m ³)	Filling activated carbon max. (kg)	Lifetime activated carbon* (days)
50	1.6	100	0.10	60	ca. 250
100	4.3	125	0.5	250	ca. 300
150	7.1	150	0.9	450	ca. 390
250	10.1	200	1.5	750	ca. 438
400	18.7	200	2	1000	ca. 365
550	22.5	250	2.4	1200	ca. 318
750	29.7	250	3.2	1500	ca. 292
1000	38.7	250	4	2000	ca. 250

*table values calculated at 100 ppm H₂O in raw gas

Optional features: intermediate shelves for activated carbon container, auxiliary heating for flex operation, bypass conductors, connection cables, auxiliary cooler/precooler

We also offer:

- dosing feeder
- push floor dosing feeder
- funnel systems
- inclined conveyors
- scraper floors
- gas processing
- heat exchanger
- turnip shredder
- weighing equipment
- stairs / platforms
- central lubrications
- barrel filling stations
- screw conveyors
- slurry pumps / mobile
- activated carbon
- substrate heater



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