

Sulfurex[®]BF

Biological gas desulphurisation

H₂S removal with the lowest operational costs

Why use Sulfurex[®]BF?

- No chemicals
- High efficiency on H₂S removal
- Environmental friendly

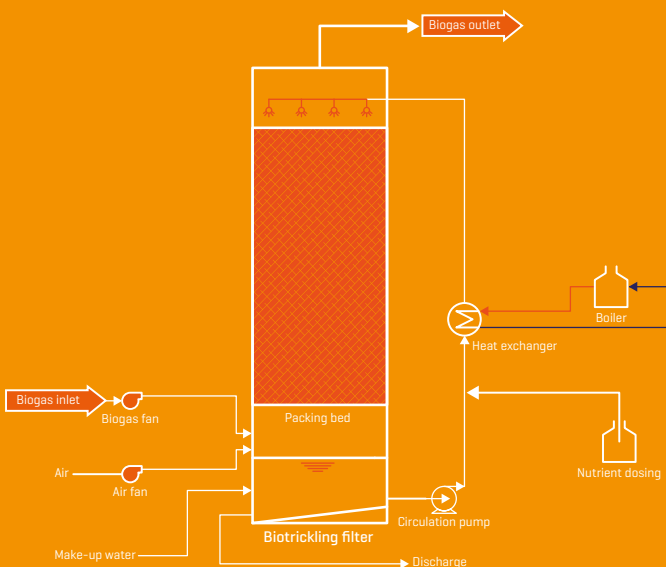


How does it work?

The Sulfurex[®]BF technology is a simple way of desulphurisation without the use of chemicals. The system operates as a biotrickling filter. In the bioreactor, bacteria convert the H₂S into sulfuric acid. By creating the optimal conditions, the most effective desulphurisation bacteria are selected.

Monitoring and control of process conditions like pH, temperature, nutrients and oxygen level ensure maximal removal efficiency.

DMT Environmental Technology always selects the best packing media for the bacteria to grow on. This guarantees a small footprint and easy operation.



Selection table

Sulfurex [®] BF		Flow (Nm ³ /h)					
		250	500	1000	1500	2500	5000
Concentration (ppm)	1000	BF-B	BF-C	BF-D	BF-D	BF-E	2x BF-E
	2000	BF-B	BF-C	BF-D	BF-E	BF-F	2x BF-F
	5000	BF-C	BF-D	BF-E	BF-F	2x BF-F	2x BF-F
	8000	BF-C	BF-D	BF-F	BF-F	2x BF-E	4x BF-F

Higher flows and concentrations on request.

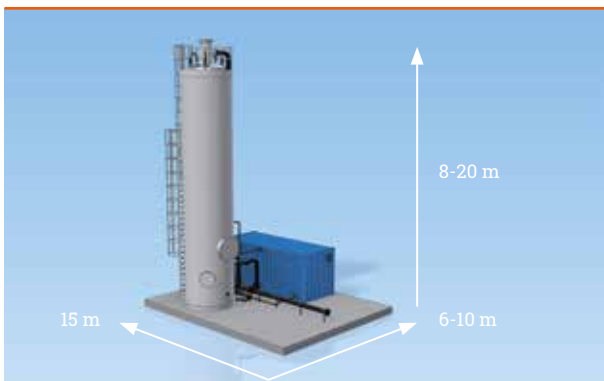
Biological desulphurisation explained

Specific bacteria such as *Acidithiobacillus* convert H₂S into elemental sulphur and/or sulphuric acid, depending on the applied oxygen concentration. Oxygen is added to the gas, by an automatic control system, which adjusts the air flow in relation to the biogas flow and outlet oxygen concentration.

Inside the Sulfurex[®]BF, water and nutrients are automatically refreshed, sprayed on top of the bacteria and circulated over the bioreactor. The water is heated through a heat-exchanger to create the optimum temperature for the biological process. The produced sulphuric acid and excess biomass are removed from the process through the drain.



Bacterial conversion



Optional features

- Gas drying and conditioning
- Full (bio) gas analysis



Our challenge
To create a clear
and prosperous future



DMT Environmental Technology

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