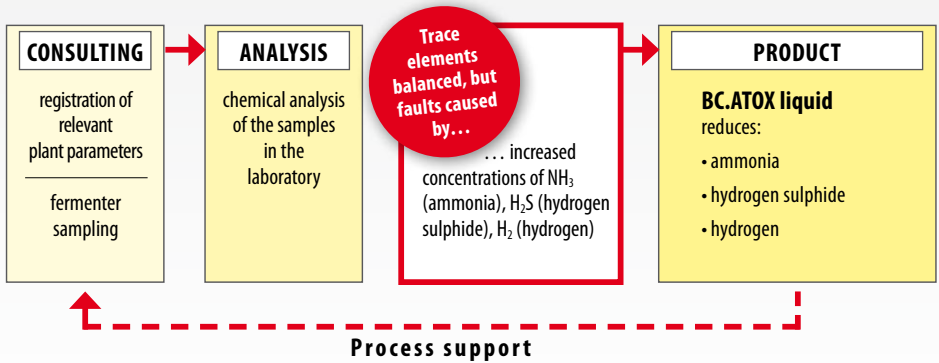


# BC.ATOX LIQUID

The special compound of agents for reducing trace gases in biogas and inhibiting substances in the digester.



- reduces inhibitory effect of toxic substances
- activates key microorganisms
- stabilises fermenter biology
- supports substrate degradation
- effective reduction of trace gases in biogas (H<sub>2</sub>S, NH<sub>3</sub>)
- improves performance
- reduction of engine oil consumption
- increases profitability

# Stabilised Process Biology → better plant performance



The special compound of agents reduces:

- hydrogen sulphide
- ammonia
- hydrogen in biogas

Different amounts of trace gases are produced during the digestion process dependent on the substrates fed in. In addition to the negative effects on the stability of the process in the digester, those trace gases might cause considerable damages to the engine and catalysers and difficulties when conditioning biogas for feeding into the natural gas grid.

## Hydrogen Sulphide:

In addition to the toxic effect of  $H_2S$  in the digester, its reaction to sulphuric acid causes the highest possible level of corrosion for the CHP. Furthermore, high concentrations of  $H_2S$  increase the danger of precipitation of trace elements in the digester.

Dosage of BC.ATOX liquid: 11–16 kg for reducing 100 ppm  $H_2S$

## Ammonia:

$NH_3$  is toxic for many micro-organisms and might lead to considerable faults during the process. Increased concentrations of  $NH_3$  in biogas might lead to sedimentation of nitrogen compounds in the engine and to increased  $NO_x$ -values in the exhaust gas.

Dosage of BC.ATOX liquid: 1–5 kg for reducing 10 ppm  $NH_3$

## Hydrogen:

High concentrations of  $H_2$  in the digester might disconnect the single stages of degradation and lead to the concentration of organic acids. When feeding to the gas grid, the limit for gas conditioning might be exceeded.

Dosage of BC.ATOX liquid: see the following advice

The dosage of **BC.ATOX liquid** depends on the level of load based on a comprehensive agreement with the special consultancy department of Schaumann BioEnergy Consult. If Schaumann BioEnergy Consult diagnoses a permanent deficiency of trace elements after a detailed analysis of the digester's content, the parallel use of products of the BC. concept is recommended.

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