



**bhartiwaters**<sup>®</sup>  
advancing resources



# Bharti FerroSorp<sup>®</sup> S

Pelletised hydrogen sulfide filter media for external desulfurization in agricultural biogas plants

Many plants around the globe are utilizing organic materials such as animal manure, food waste, maize, grass, wheat and more to produce biogas. The biogas plants are perfectly suited to close ecological cycles, in order to reduce the carbon footprint, increase resource efficiency and add value to local economies. – providing they operate efficiently and predictably.

However, to achieve that, there is a strong demand for a robust, high quality, versatile, effective and economical solution to remove H<sub>2</sub>S in the best possible way.

Fortunately, our scientists engineered FerroSorp<sup>®</sup> S media pellets to overcome even the most difficult H<sub>2</sub>S problems, thus providing biogas plant operators with the **ideal solution to bind H<sub>2</sub>S**.

FerroSorp<sup>®</sup> S – a high quality product **Made in Germany** – is a pelletized and highly effective media based on iron hydroxide. For over 20 years FerroSorp<sup>®</sup> S has proven itself to be **the best product for the job**, even under some of the harshest, most-challenging gas conditions. The result is, that each year more and more sites around the globe opt for using FerroSorp<sup>®</sup> S as their **solution to the H<sub>2</sub>S problem**.



Agricultural biogas plant

## Applications

H<sub>2</sub>S-removal from

- biogas
- cooking gas
- syngas and pyrolysis gas
- landfill gas
- natural gas, fracking, CNG, RNG
- sewage gas
- CO<sub>2</sub>-gas
- industrial exhaust gas (i.e. paper industry, ebonite production and oil-mill applications)

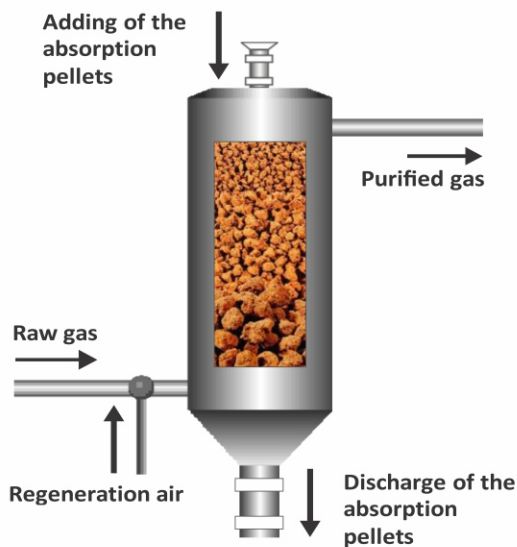


**Trusted and Used by majority of the Landmark Biogas Plants in India.**

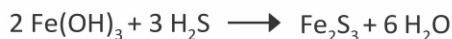


## The process

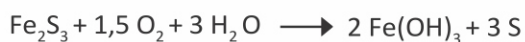
Gas containing H<sub>2</sub>S is passed through a filter vessel filled with FerroSorp<sup>®</sup> S media pellets. Two chemical reactions occur: First, H<sub>2</sub>S and iron hydroxide react to form solid iron sulphide. Second – either simultaneously or in a parallel vessel – oxygen converts the pellets back into iron hydroxide in a process called regeneration. Elemental sulphur is formed and accumulates within the pores of the media pellets, which results in high loading rates, long media lifecycles, and minimised clumping.



### Absorption:



### Regeneration:



## Advantages

- Well proven, non-hazardous product
- 20+ years of experience
- Low removal costs for H<sub>2</sub>S compared to other leading technologies
- High loading capacities due to selective desulphurisation
- Fast reaction, achieves 0 ppm H<sub>2</sub>S at outlet
- Easy handling
- Superior performance in gases without air/O<sub>2</sub>
- Possible use as fertilizer\*  
(\* depending on regulations/legislation)

## You can choose from our broad selection:



FerroSorp<sup>®</sup> Sd 2 - 4 mm



FerroSorp<sup>®</sup> Sk 2 - 8 mm





FerroSorp<sup>®</sup> Sk 5 - 25 mm

Note: Illustrations are not to scale.

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