Gas purification

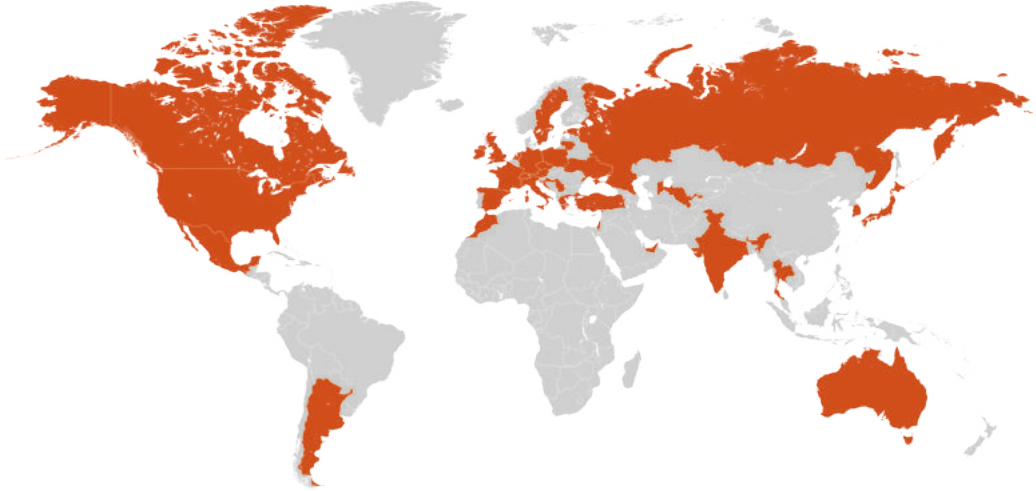
FerroSorp® S

Pelletised hydrogen sulfide filter media in industrial applications such as CO_2-gas and synthesis gas

Industrial gases such as synthesis gas (syngas) and CO_2-rich gas for CO_2-production usually contain hydrogen sulfide, especially when produced from coal, decaying biomass or other sulfur-rich raw materials. The toxic, corrosive effects of H_2S are well-documented and contribute to decreased gas quality. In some cases, H_2S may also result in the production of dangerous SO_2 emissions. Because industrial applications operate under such broad varieties of conditions as far as pressure, temperature, H_2S freight, humidity are concerned, it is critical for plant operators to utilize technology that is proven, versatile, and economically feasible for their applications. Our FerroSorp® S media pellets are specifically designed to easily overcome even the most challenging industrial conditions.

FerroSorp® S – a high quality product **Made in Germany** – is a pelletized and highly effective media based on iron hydroxide. For over 20 years FerroSorp® 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® S as their **solution to the H_2S problem**.

Applicable for H_2S-containing gases such as syngas, CO_2-gas, geothermal fields and oil & gas-industry

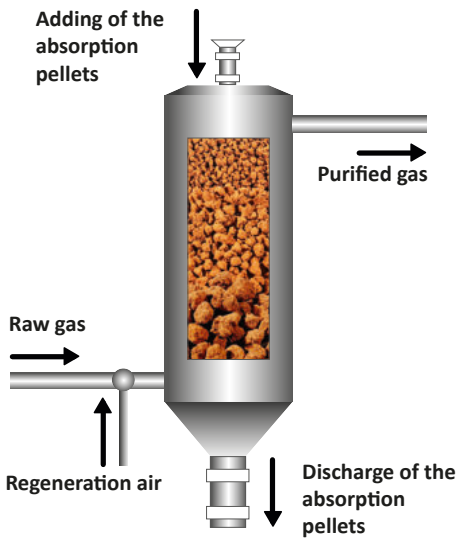


HeGo® BIOTEC INTERNATIONAL

Gas purification

The process

Gas containing H_2S is passed through a filter vessel filled with FerroSorp® S media pellets. Two chemical reactions occur: First, H_2S 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:

$2\ Fe(OH)_3 + 3\ H_2S \longrightarrow Fe_2S_3 + 6\ H_2O$

Regeneration:

$Fe_2S_3 + 1{,}5\ O_2 + 3\ H_2O \longrightarrow 2\ Fe(OH)_3 + 3\ S$

Advantages

- Well proven, non-hazardous product
- 20+ years of experience
- Low removal costs for H_2S compared to other leading technologies
- High loading capacities due to selective desulphurisation
- Fast reaction, achieves 0 ppm H_2S at outlet
- Easy handling
- Superior performance in gases without air/O_2
- Possible use as fertilizer*
  (* depending on regulations/legislation)

You can choose from our broad selection:

FerroSorp® S 2 - 4 mm

FerroSorp® S 2 - 8 mm

FerroSorp® S 5 - 25 mm

Note: Illustrations are not to scale.

We gladly advise you individually!

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