GER SCRUBBER

BIOLOGICAL H2S SCRUBBER

Biological H2S Scrubbers are suitable for use on sites with a high gas flow but do not require the use of chemicals at any stage in the process. Instead sulphur oxidation bacteria, of the Thiobacillus family, lives on the media which is packed into an acid proof tank/s. A liquid nutrient, NPK nutrient or digested sludge liquor, is constantly re-circulating within the tank and sprayed across the media. The temperatures of the tank must be monitored and maintained in 35-40°C in order for the hydrogen sulphide (H2S) to be biologically converted into sulphate through a series of oxidations.

Benefits and Advantages

Reducing the content of hydrogen sulphide (H2S) in your raw biogas will greatly increase the operational life of your CHP engine. GER Biological H2S Scrubber is designed to efficiently operating for 3 – 5 years period with scheduled maintenance being observed before major servicing required. Our new generation H2S Scrubber comes in twin chambers configuration which allows routine back flushing to maintain an optimal bacteria colony size. Depending on the feedstock, untreated biogas typically contains between 1000-5000 ppm of H2S. When put through a CHP engine this will produce a significant and damaging amount of sulphuric acid which will result in severe corrosion of your equipment. We aim to reduce the hydrogen sulphide to acceptable levels, allowing your CHP engine to run more efficiently and economically. Many leading CHP manufacturers require a maximum H2S limit of 250ppm in order for the full warranty to be valid.

Cost of Operation and Maintenance

- NO CHEMICALS are required in the operation and maintenance
- Quarterly routine back flushing will
- Major servicing and inspection will take about 12 – 18 man hours
- Total consumables and maintenance cost less than RM2000 per year or RM0.0003 per m3. Based on 1000 m3/hr for 8000 hours per year
- GER H2S Scrubber is designed to last for 20 years continuous in operation

Specifications

MODEL	TYPE	FLOW RATE	DESIGN INPUT H2S ppm	DESIGN OUTPUT H2S ppm
GER-S-750S	Singlet	750m3/h	3000	Below 200
GER-S-1500D	Duplet	1500m3/h	3000	Below 200