

TECNIUM[®]



TECNIUM

PROCESS

**DESIGN ENGINEERING
INSTALLATIONS
OF GAS TREATMENT**

BIOLOGICAL DESULPHURATION OF BIOGAS

The valorization of the biogas generated in consumer waste treatment units, compost units or water treatment plants as fuel to generate electrical energy is limited by the presence of sulphur compounds harmful to the co-generation engines. Traditional technologies for desulphuration imply a big consumption of reagents as well as trouble with other chemicals present in the gas flow. **TECNIUM process** has developed an innovative biological system that allows the highest efficiency in the removal of those chemicals with a minimal cost both of installation and exploitation.



INDUSTRIAL REFERENCE::

Installation to desulphur biogas coming from a city sewage treatment plant, with anaerobic digestion of the sludge. Concentration at gas intake is 3.000 ppm of H₂S.

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The main advantages of the biological systems are:

- **High efficiency**
- **No clogging**, since proces is based in the biological decomposing of H₂S in soluble sulphates and water.
- **Minimal explotation cost**, with no need of reagents and a low energy consumption.
- **Zero effluent treatment cost**, since they can be reintroduced at the plant's head.
- Totally **automatable** system
- Ease of **adaptation to fluctuations in the H₂S concentration**

TECNIUM Process can offer you alternative solutions to the same problem, by way of the chemical treatment of biogas, wet or dry process, with a FeO bed as well as with recirculation of an alkaline solution.

The constant research done at **TECNIUM Process** and the co-operation with university laboratories has allowed us to develop and register new and more efficient treatment processes.



TECNIUM Process has quite a number of applications for the treatment, depuration a filtration of gases both by wet and dry methods. Our scrubbers, venturis, multiventuris, bag filters, degassers, biofilters, UV units, and so on have solved hundreds of problems in fertilizer industries, water treatment plants, surface treatment units, odour removal...

TECNIUM PROCESS makes their available to their equipment to design the customized solution to their problem.

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