

Partnering Opportunity

Business Request

A UK engineering company is looking for gas analysers under supplier or manufacturing agreement

Summary

A UK engineering company has developed a patented waste to energy system which transforms industrial food waste into energy for use in universities, hospitals etc. is looking for a supplier of gas analysers. The partner will need to supply gas analysers for biogas sites which can monitor 4 gases at 23 millibar pressure: methane, carbon dioxide, oxygen & hydrogen sulfide. The company is looking for a manufacturer working in gas monitoring instrumentation under supplier/manufacture agreement.

Reference BRUK20190522001

Details

Description

The main objective of the waste to energy machine is to produce methane gas of combustible quality for use in either a boiler or combine heat power or both. The quality and quantity of the biogas produced is known to vary due to many parameters including feed stock composition, digester health, and machine operational parameters (feed rate, temperature, etc).

To achieve its gas quality/quantity targets, the machine control system needs to have access to live gas quality and quantity data. Only then will the control system be able to automatically adjust performance parameters based on live gas data.

The company currently uses a portable gas analyser that has a USB connection through which it can be recharged and communicate gas quality data. However, the supplier of that gas analyser does not offer after sales technical support for European and American clients. Hence, the UK company is looking for a new supplier able to provide after sales support in the Europe and USA.

The gas analyser needs to monitor 4 gases at 23 millibar pressure:

- CH₄ - methane, % of stream
- CO₂ - carbon dioxide, % stream
- O₂ - oxygen, % of stream
- H₂S - hydrogen sulfide - 200-2000 ppm

The company wants also to track H₂O (water vapour) too.
Leftover gases are usually mercaptans (about 1500 odourific species, about 1% of total stream).

Multiple gas analysers may be fitted to a single machine.

The company should require between 15 and 50 units per year.

Further technical information on the gas analyser:

- The control system does not directly support USB based communication. Consequently, an ethernet interface has been created for the current gas analyser. The chosen hardware platform for the interface is the Raspberry PI.
- Located on fixed installations
- Needs to be a wavelength optical infra-red analyser
- Needs integration to the programmable logic controller (PLC) for data collection

The company is looking to sign an OEM (original equipment manufacturer) or supplier agreement.

Advantages and Innovations

The award winning patented waste to energy system is available in a manageable size, is stackable, scalable and modular.

Technical Specification or Expertise Sought

Gas analyser required specifications:

- CH₄ analysis (0-100%)
 - CO₂ analysis (0-100%)
 - O₂ analysis (0-25%)
 - H₂S analysis (0-5,000ppm)
 - Atmospheric pressure (800-1200 mbar)
- Ideally the gas analyser would analyse H₂O (water vapour) too.

Integration to the programmable logic controller (PLC) for data collection.

UL (Underwriters Laboratories) approved
CE Marking required

Stage of Development

Already on the market

Partner Sought

Type and Role of Partner Sought

The partner would be required to supply the gas analysers with the agreed specifications and provide the after on site sales technical support.

The partner is expected to become either a supplier or an OEM.

Type of Partnership Considered

Supplier agreement
Manufacturing agreement