

Gasmeter™ FTIR application note

Stack testing

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KEY WORDS

- Stack testing
- Fourier Transform Infrared (FTIR)

PRODUCTS

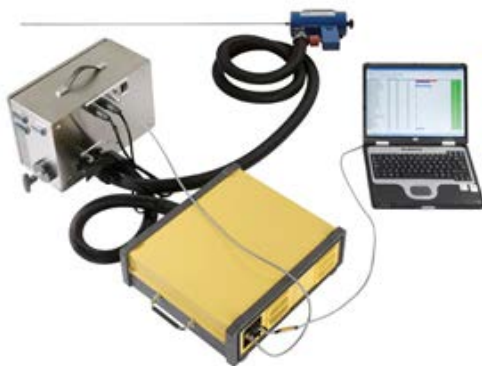
- [DX4000](#) Portable FTIR Gas Analyzer
- [PSS](#) Portable Sampling System

OVERVIEW

Portable **Gasmeter™** measuring system is an ideal tool for stack testing. Just a single analyzer can be used to measure almost all criteria pollutants - this saves a lot of time and effort, not to mention the fast setup time and simple operation procedure.

Some key benefits of the **Gasmeter™** portable measuring system include:

- Just one analyser to
 - carry up to the platform
 - operate
 - maintain
- Very low need for calibrations – no span calibrations needed
- All measurement data is stored on a computer, allowing full post-measurement processing of the data
- The same system can be used in many different applications, due to the expandability of the system



The **Gasmeter™** portable measuring system includes:

- **Gasmeter™** Dx4000 gas analyzer
- **Gasmeter™** portable Sampling Unit
- Portable Sample Probe
- Sample Lines

All parts that are in contact with the sample gas are heated to 180°C.

TYPICAL APPLICATION

Gas	Formula	Typical ranges
Water	H ₂ O	High %
Carbon Dioxide	CO ₂	High %
Carbon Monoxide	CO	From low ppm to high %
Nitrogen Monoxide	NO	From low ppm to high ppm
Nitrogen Dioxide	NO ₂	From low ppm to high ppm
Nitrous Oxide	N ₂ O	Low ppm
Sulphur Dioxide	SO ₂	From low ppm to high ppm
Methane	CH ₄	From low ppm to high ppm
Ammonia	NH ₃	Low ppm
Hydrogen Fluoride	HF	Low ppm
Hydrogen Chloride	HCl	Low ppm

One of **Gasmeter's** outstanding advantages is the capability to measure several additional components, which can easily be added into the analysis settings. Some typical examples:

Group	Examples	Application area
Hydrocarbons	Methane, Ethane, Acetylene	Combustion efficiency in natural gas fueled incinerators
BTEX	Benzene, Toluene, Ethylbenzene, <i>m</i> -, <i>o</i> - and <i>p</i> -Xylene	Combustion and pyrolysis processes
Aldehydes	Formaldehyde	Incinerators, cement industry
Non-organic compounds	Ozone	Pulp and paper industry
	Chlorine dioxide	Pulp and paper industry
	Hydrogen cyanide	Waste incineration

This application note is meant to be an informative example of typical application where Gasmeter analyzers could be used. This is not a technical specification sheet. Information in this document is subject to change without prior notice. Optimal product configuration is application dependent, and exact application details such as detection limits, components included in the application, etc depend on process and/or measurement site details and may vary. Please, contact your local Gasmeter sales representative to get information specific to your needs.