

# Air Quality - outdoor atmosphere

– Monitoring and assessment of ambient air quality



There is often a need for assessment of the environmental impact of atmospheric pollution from traffic, construction work or industrial production.

## Measurement of air quality

FORCE Technology is accredited by DANAK to perform air quality measurements in order to assess various types of environmental impact in ambient air.

Air quality assessments are often requested by industrial companies or environmental authorities. Through measurement campaigns or by means of dispersion modelling, FORCE Technology can assess whether air quality guidelines are being complied with.

At the same time, the effect of pollution reducing measures taken to reduce air emissions can also be documented.

Measurements can be carried out as short or long-term campaigns, and data from the measuring stations set up is automatically transmitted to FORCE Technology for data handling and presentation.

Results can be presented quickly and easily on an hourly, daily or weekly basis. Based on ongoing data collection, calculations of specifically defined averages or percentiles for selected periods can be made according to requirements.

Measurements are carried out in accordance with reference methods as recommended in EU's air quality directives.

### Fine particles, dust

Dust (TSP and PM<sub>10</sub>), fine particles (PM<sub>2.5</sub>), ultrafine particles and soot are typically measured on a 24 hour basis, but may be measured continuously if needed for e.g. assessment of highly fluctuating emissions.

The composition of particulate matter can be analyzed through chemical analysis or by means of SEM (Scanning Electron Microscopy).

Dust fallout can also be measured to assess the risk of nuisance from sedimenting particles in neighboring areas. For this purpose, FORCE Technology has developed a wind directional sampler (METDUST).

Meteorological data may be retrieved from measurement equipment set up at the measuring site.

### Gaseous components

FORCE Technology offers a comprehensive collection of equipment for the measurement of gases in atmospheric air, including nitrogen oxides (NO, NO<sub>2</sub>, NO<sub>x</sub>), carbon monoxide (CO), ozone (O<sub>3</sub>) and sulphur dioxide (SO<sub>2</sub>).

Measurement of gases can be carried out through continuous measurements or means of passive sampling. The choice of method is based on the nature and scope of the task.

FORCE Technology also disposes of special equipment for the measurement of a large number of different types of gases, including non-methane hydrocarbons (NMHC) and organic micropollutants such as dioxins and PAH.

### Measured data is displayed online over the Internet

The results of measurements can be displayed online on a website, accessible to the user via the Internet through a username and password.



### Further information:

Karsten Fuglsang, Tel. +45 43 25 01 48, kfu@force.dk  
Arne Oxbøl, Tel. +45 43 25 01 30, aox@force.dk

2479-2-da-en Subject to changes without notice

FORCE Technology, Headquarters  
Park Allé 345  
2605 Brøndby, Denmark  
Tel +45 43 25 00 00  
Fax +45 43 25 00 10  
info@forcetechnology.com  
forcetechnology.com