

Approval of Grimm EDM180 for PM10 and PM2,5 measurements

Since April 2006, the Grimm Environmental Dust Monitor, model EDM180 has been officially certified by the German Environmental Protection Agency (Umweltbundesamt, UBA) for PM₁₀ monitoring in equivalency of EN12341. In December 2007, the evaluation for PM₁₀ and PM_{2,5} started for the Austrian UBA according to the guidelines and regulations. This tests were finished by August 2009 and the EDM180 has now been officially approved for PM₁₀ (EN12341) and PM_{2,5} (EN14907). Consequently, EDM 180 is the only instrument worldwide which simultaneously can provide approved and equivalent data for PM₁₀ and PM_{2,5}. The testing was conducted at four measurement locations in Austria (Graz South, Steyregg, Wieselsfeld and Klagenfurt). The maximum combined measurement inaccuracy was recorded at the measurement location in Wieselsfeld and amounted up to 9,6%. Similar measurement campaigns as above have also been conducted in North America (USA and Canada). An application has been submitted to the Swedish EPA and the reference lab at Stockholm University. With the results from these successful campaigns, we hope to have the basis for receiving an approval in Sweden also in the near future.



Links with more information:

- [Grimm home page](#)
- [EDM 180 brochure](#)

High temperature sampling

Sampling and dilution at very high temperature is a difficult task where no instrument supplier until now has been able to provide a good solution. We are now proud to offer a high-temperature sampling and dilution system, i.e. up to 1 000°C and higher, for immediate delivery. The high temperature sampling equipment is based on a modified Dekati DAD-100 axial diluter. It uses a ceramic pipe and reversed flow of cooled dilution air to cool the joint between metal and ceramic parts. The first unit has already been delivered to one of our customers in Trondheim, Norway.

Dekati PM-10 impactor fulfils the new ISO standard for stationary source emissions

A new ISO standard has been released for stationary source PM₁₀ and PM_{2,5} emission measurements: *ISO 23210: Stationary source emissions — Determination of PM10/PM2,5 mass concentration in flue gas — Measurement at low concentrations by use of impactors.*

The Dekati PM-10 impactor meets the standard requirements and is validated for these measurements. A recommended setup is to have the impactor inside the stack but a heated impactor setup is also possible. The necessary accessories for both applications are available.

An implication for the users of gravimetric DLPI impactors and the electrical impactor (ELPI) is that these instruments use similar impactor technology as the PM-10 impactor. Although DLPI and ELPI have much more stages than a PM-10 impactor and thus, cannot be approved for the mentioned ISO standard, the use of similar technology definitely adds to the credibility of the results obtained by these instruments.

An ISO standard for sampling and dilution from smokestacks is also in preparation and is anticipated to be released in 2010. We foresee that the Dekati FPS-4000 sampling and dilution system will be approved for this standard as soon as it is released.

Links with more information:

- [Dekati home page](#)
- [ISO standard](#)
- [PM-10 impactor brochure, ISO standard](#)
- [PM-10 impactor brochure](#)
- [FPS-4000](#)



Topas ADD 536

To avoid contamination in hospital operating rooms, a laminar clean air flow is applied to the operating table. For verification of this system, a defined test aerosol is distributed at six different positions according to the German DIN 1946-4 and Swiss SWKI 99-3 standards. The Aerosol Distribution and Dilution System ADD 536 from Topas was designed to fulfil these requirements. Many other applications, such as simultaneous calibration and alignment of particle counters, are also of interest for this measurement system. More information is provided in the [ADD 356 brochure](#).



More information about the Topas product line can be found in new brochure at our home page [Topas product line brochure](#).

Upcoming exhibitions

NOSA 2009

Together with our partner Grimm, we will participate at exhibition of the Nordic Society for Aerosol Research (NOSA) Symposium in Lund, November 12-13, 2009. ExIS is represented by Peter Ahlvik. In a joint booth, a selection of the most interesting Grimm instruments will be displayed. Jürgen Spielvogel will also have two poster presentations at NOSA titled:

- *A New Real-time Exposure Monitor for Measuring Airborne Nanoparticles*
- *Comprehensive Measurement of Atmospheric Aerosols with a Wide Range Aerosol Spectrometer*

NOSA Symposia are held annually in one of the Nordic countries, within the field of aerosol science and technology. The focus for this Symposium is in-situ measurements of aerosol particles – a field in which Grimm has great expertise.

More information about NOSA is provided via the links below:

- [Invitation to NOSA 2009](#)
- [NOSA 2009 web site](#)

SAE Heavy-Duty Diesel Emission Control (HDDEC) symposium 2010

Much to our regret, the 2009 Heavy-Duty Diesel Emission Control (HDDEC) symposium in Gothenburg was cancelled due to the current harsh economic climate. We hope that this symposium will be held in 2010 instead and we will come back with more information about that later.

You are always welcome with questions and we are happy to send you our newsletter.

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Best regards,

Peter Ahlvik and Staffan Larsson
