



ASPECT

Aerosol Size and Shape Analyser

CONTACT DETAILS

Telephone:

From UK:
01275 847787

From rest of world:
+ 44 1275 847787

Email:
aerosol@biral.com

Web:
www.biral.com

We look forward to
hearing from you

Simultaneously measures the size and shape of single airborne particles

Many particle characterisation instruments measure only particle size and base their measurements on the assumption that the particles are perfect spheres. Both natural and man-made particles have a very wide variety of shapes and this can be a powerful parameter in classifying them. The **Aspect** particle analyser uses Biral's ASAS technology to simultaneously measure the size and shape of single particles at a high output rate.



The ASAS technology uses the complex pattern of the light scattered by particles in a laser beam. Analysis of the spatial pattern of the scattered light gives a measure of the asymmetry of the particle and the integrated intensity a measure of the particle size.

APPLICATIONS

Pharmaceutical & Chemical Industry

- Particle design and formulation
- Real-time monitoring and control of particle production processes

Climate / Meteorology

- Ice crystal formation

Environmental Monitoring

- Source apportionment
- Fibre monitoring

Civil Defence Biodetection

- Monitoring bioaerosol levels





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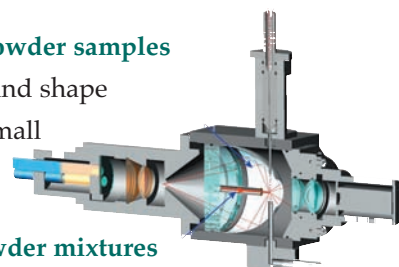
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ASPECT'S STRENGTH

Aspect uses light scattering to measure particle shape as well as size and so is suitable for smaller particles and higher throughput rates than systems that rely on particle imaging. It is particularly appropriate for:

- Identifying subtle differences between aerosol or powder samples

Even when particle populations have continuous size and shape distributions, Aspect has the sensitivity to spot very small changes in size and shape characteristics.



- Discriminating particle types within aerosol for powder mixtures

Aspect can discriminate discrete particle classes within a mixture by characterising particle shape. As a result, separate size or shape distributions can be generated and the ratio of particle species can be calculated.

ASPECT'S FEATURES

Device Features

Particle size:	0.5 - 20 μm
Size resolution:	0.5 μm
'Asymmetry Factor' shape parameter:	0 - 100
Real-time particle counting:	at up to 2,000 / second
Dimensions:	L 47 cm x W 27 cm x H 26 cm
Weight:	20 kg

Optional omni-directional inlet for sampling in a wide range of environmental conditions

Software and Analysis Features

- Easy to use software running from MS Windows on a standard PC
- Data can be exported to Excel or other analysis software
- Automated diagnostic routine
- Aspect's own analysis software enables real-time and simultaneous data display including: size distribution, shape distribution, particle count as a function of time, particle count as a function of size and shape
- Software filter function to separate classes or remove unwanted background
- Alarm function indicating particle population has moved outside control limits

