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Spotting the synergies

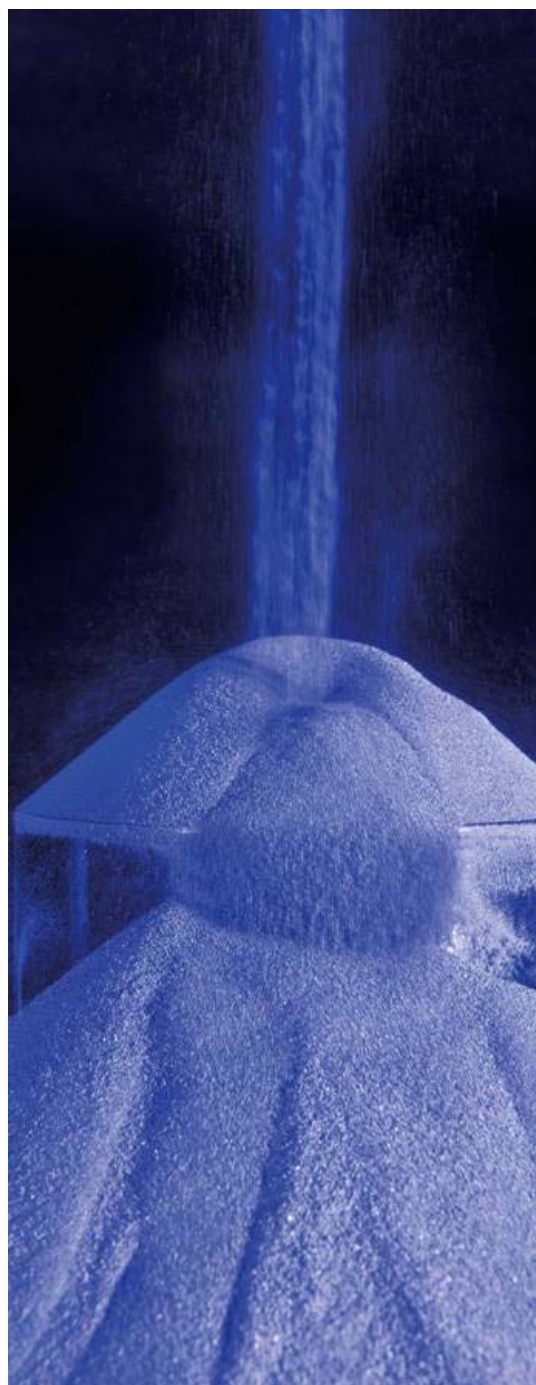
As we continue to study powders and their processability, the complementary nature of different testing techniques becomes increasingly clear. Dynamic, shear and bulk properties all provide insight into the nature of powder but the properties of most relevance vary from application to application and from powder to powder. For example, while shear properties are useful when studying cohesive materials, it is the dynamic properties that allow sensitive differentiation across the cohesivity spectrum. And, although dynamic analysis is an excellent choice for directly measuring a powder's response to air, itself a critical factor in many applications, much supplementary insight can be gathered from permeability and compressibility data. The answer we believe is to approach each powder or application with an open mind and a well-equipped toolkit. Piecing together the fullest, most useful picture of powder behaviour is easier if you have the most applicable information to start with!

Tim Freeman, Director of Operations



'Getting to grips with QbD'

Tim Freeman and Professor Fernando Muzzio, Director of the Engineering Research Center on Structured Organic Particulate Systems at Rutgers University, will jointly contribute a conference paper at Interphex 2010. 'Getting to grips with QbD' addresses the initiation of QbD with respect to solid dose applications and describes case studies covering a range of powder processing systems. In the poster sessions, Tim Freeman and Brian Armstrong co-authored work describing the



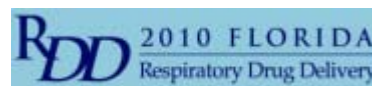
We look forward to meeting you at:

20 - 22 April 2010



Booth #1266, Jacob K. Javits Convention Center, New York

25 - 29 April 2010



Respiratory Drug Delivery

'Characterisation of granulation wet masses using powder rheometry'. [Download the abstracts here.](#)

We also look forward to seeing you on our **Booth #1266.**



Presenting at congress

The World Congress on Particle Technology (WCPT6) takes place this year alongside POWTECH and TechnoPharm in Nürnberg, Germany. Members of the Freeman Technology team are pleased to be contributing a number of podium and poster presentations on different aspects of powder characterisation. For titles and abstracts visit our [Literature Section](#).

As well, Dr David Morton of Monash University, Australia, will speak about work using the FT4 Powder Rheometer to investigate 'The influence of dry powder coating methods, including mechanofusion, on the flow properties of inhalable grades of lactose monohydrate'.

Visit the [WCPT6 website](#) to view the full congress program and please visit us at Powtech, Hall 6/6-444.



More on inhaled drugs

Continuing the inhaled products theme, it is clear that the FT4 Powder Rheometer can provide unique insight into dry powder inhaler formulations. This will be reinforced at RDD 2010 in a presentation of work from the University of Bath, which shows a direct correlation between the dynamic powder properties and fine particle dose (FPD), a measure of drug delivery efficiency. The team has shown a robust correlation between FPD and aerated energy, which indicates how the flowability of the powder changes with the amount of air flowing through it.

To find out more about applications of the FT4 for inhaled drug products email info@freemantech.co.uk or call +44 (0)1684 310860.



New reference standard launch

At PTXi 2010 Freeman Technology will present a new reference standard which enables users to verify the long term performance of the FT4 in line with their own laboratory practices. The new standard, a stable fine limestone (CRM116/BCR116), is supplied by the EU Institute for Reference Materials and Measurements and there already exists calibration data for shear testing. Test protocols and acceptable results ranges for dynamic, shear and bulk property measurement (compressibility and permeability) have now also been established. Freeman Technology will supply the standard

Florida, USA

26 - 29 April 2010



POWTECH 2010, together with TECHNOPHARM and WCPT6, supported by PARTEC

Hall 6/6-444, Nürnberg, Germany

4 - 6 May 2010



Powder & Bulk Solids Show

Booth #3520, Donald E. Stephens Convention Center, Rosemont, IL

[Click here for more information](#)

26 - 29 May 2010



Course

Advances in Pharmaceutical Process Design

by Academic Experts from Rutgers University, NJ and Recognized Industry Leaders

Intercontinental San Juan Hotel in Beautiful Isla Verde, Puerto Rico

[Click here](#) to view the course brochure

in small volumes for routine calibration.

See us on Booth #3520 or [click here](#) to find out more.



Download our new white paper

'Analytical techniques for successful cosmetic compact manufacture' considers the measurement of some of the most appropriate properties of both the formulation and finished compact. Assessing the 'processibility' of a cosmetic blend is potentially a complex task since an array of different factors affects its behaviour. This makes it important to examine a wide variety of parameters. Combining dynamic, bulk and shear property measurement, the FT4 is well suited to this application. It can also assess compact hardness and pay-off.

[Click here](#) to download this free white paper.



Learn more - 'Advances in Pharmaceutical Process Design'

Freeman Technology is again joining forces with academic experts from Rutgers University and other industry specialists to deliver the next in a continuing series of courses for the pharmaceutical industry. 'Advances in Pharmaceutical Process Design' is organised by Mixing Consultants Inc. and sponsored by Freeman Technology, Gericke and Glatt Air Techniques. It takes place from 26-28 May 2010 in San Juan, Puerto Rico. For further details of the course program and costs, and to register please [click here](#).

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