

Automated Hopper Design Software

Using the FT4 to Calculate Mass Flow Bin Limits

The biggest obstacle to overcome when designing hoppers, bins or silos is the situation where “no-flow” occurs due to arching. The likelihood of this happening depends on many factors including the properties of the powder concerned, the size and shape of the hopper and the material from which the hopper walls are constructed.

In order to determine the ideal hopper measurements, companies have historically employed the services of an external consultancy. This is typically a very expensive exercise and would need to be carried out every time any changes are implemented in either the powder or the hopper itself.

The new Hopper Design Software from Freeman Technology could provide substantial savings for your company by allowing you to calculate hopper parameters using the FT4 Universal Powder Rheometer®.

About the Hopper Design Software

The Hopper Design Software is an addition to the existing Data Analysis package.

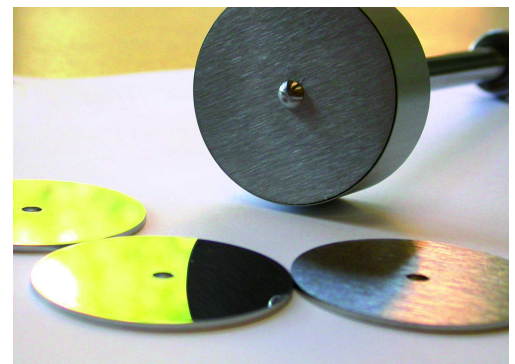
The software uses data generated from the FT4 Shear Cell, Wall Friction and Compressibility tests to reliably determine the Outlet Size and Hopper Half Angle for a mass flow bin.

The whole process is automated for ease-of-use and the whole process can be completed from start to finish in just 2 hours.

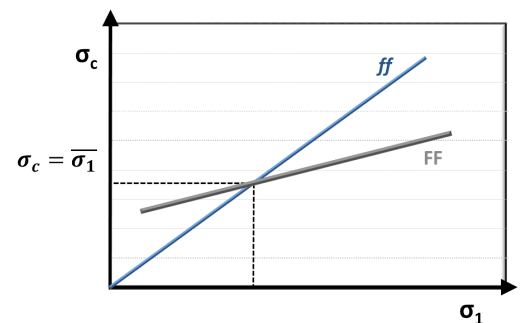
- Fast, reliable method of determining Hopper Half Angle and Outlet Size.
- Cost effective – save thousands in consultancy fees.
- Tests can be configured to represent any hopper wall material.
- If the powder or wall material changes simply run the tests again - no need to contract out to 3rd parties every time.
- Easy to use, no special training or knowledge required.
- Fully automated – user-friendly test sequences are followed by automatic analysis and calculations.



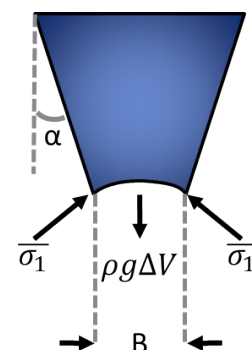
Shear Cell Test



Wall Friction Discs



Flow Function & Flow Factor Plot



Hopper Parameters

For further information, or a quotation, please contact:

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