



SSI TECHNOLOGY, INC.

Specialists In The Application Of Process and Packaging Equipment



Choosing the right dry solids feeder

What are the most important factors to consider when choosing a feeder for my dry bulk material?

Choosing the right dry solids feeder for an application can be a challenging undertaking. Arming yourself with the necessary information can ease the task and ensure that the proper equipment selection is made.

Initially, the system parameters need to be carefully defined. This includes identification of the materials to be metered, the bulk densities and the individual handling characteristics (free flowing, adhesive, cohesive, pressure sensitive, etc.) of each. The feed rate range (minimum, nominal and maximum) must also be clarified. Consideration should be given to future feed rate requirements prior to sizing the proposed feeder. The accuracy requirements must also be established. This will dictate whether a volumetric or loss-in weight feeder is required for the application. Keep in mind that a feeder is a component of a system and as such its performance can and will be affected by the other equipment included within that system.

As a result, careful consideration must be given

with regard to how the material gets to the feeder and to the type of device that the feeder will discharge into. For example, the feeder may be refilled manually, with a pneumatic conveyor, a mechanical conveyor, a live bottom or a static hopper. This equipment can affect the product characteristics, which in turn can impact the feeder's performance, by fluidization, densification and/or degradation of the material. As far as product discharge is concerned, the feeder may be metering material into a conveyor, blender or mixer, extruder or pneumatic system. These devices can generate heat, positive or negative pressures and/or moisture, all of which can affect feeder performance and the quality of the end product. An obviously crucial system parameter is the feeder location. There may be limitations and/or restrictions with respect to equipment width, length and height. Equally, the feeder environment (indoors, outdoors, temperature controlled, etc.) may play a major role in machine selection.

Once a prospective buyer has all the above information he/she is ready to make a proper evaluation of potential equipment suppliers. This should start with a visit to several ven-

dors and include witnessed materials testing if at all possible. Testing one's product in a production size piece of equipment can avoid complications and loss of production at time of installation. Test parameters such as equipment size, feed rates, sample duration, and refill frequency should be the same for all manufacturers to allow for a proper comparison. A site visit can also give a buyer insight into the manufacturer's capabilities. It can be a learning experience. Especially, for those who are relatively new to the industry and to the process of equipment selection.

"Arming yourself with the necessary information can ease the task.."

Other important items that should be addressed during the evaluation stage are the reliability and versatility of the equipment, warranty, the maintenance and service requirements, and factory support including 24/7 for parts and service. These factors are especially crucial for those production lines that operate around the clock and whose downtime could cost thousands of dollars per hour.

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Volume 1: Issue 2

April 2009



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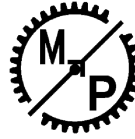
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