



Using a Screw Conveyor with a Fluidizable Material

Question

We're using a screw conveyor to move a fine, dusty material from one part of our plant to another, but the material runs out of the conveyor just like water. What can we do?

Answer

Fluidizable materials are materials that tend to flow like liquids when aerated or mechanically agitated and can flow uncontrollably through a screw conveyor. Examples include alumina, Portland cement, powdered cocoa, fly ash, limestone dust, and talc. To handle this kind of material, the screw conveyor should be designed with very low trough loading, typically 15-percent or less and with a screw of shorter pitch that decreases the distance between flights. The short pitch flighting will slow material flow through the conveyor. Running the screw conveyor at a slower speed will also reduce the chance of fluidizing the material.

If your material will discharge to a downstream weighing device, you can use a double-flight, short-pitch screw (which has two rows of flighting around the pipe) to better control the material's flow and minimize surging, thus providing more uniform discharge to the weighing device.



**Design
Engineering
Manufacturing**

KWS Manufacturing

3041 Conveyor Drive
Burlison, Texas 76028

Toll Free: (800) 543-6558
Phone: (817) 295-2247
Fax: (817) 447-8528

www.kwsmfg.com