

VIBRA SCREW CASE HISTORY



C-224

Cowles Technology Processes Hundreds of Powders with Vibra Screw Equipment

Customer

Cowles Technology Inc., Worcester, Mass.
Custom processor of various chemical, ceramic,
metal and plastic powders.

Problem

Cowles handles hundreds of materials in their facility, materials which one day may be in small lots for classification into particle sizes as fine as a micron, or another day in truckloads for grinding. A great many of these materials are difficult to handle or move from storage, and some which are free-flowing have to be accurately metered.

Solution

Vibra Screw equipment: two Live Bottom Bins, 50 cu. ft. capacity, stainless steel construction; two 7-24 Heavy Duty Screw Feeders; a Volumetric Belt Feeder; and a Vibra-Blender.

The Live Bottom Bins utilize controlled vibration to permit uninterrupted flow of material into the feeders. Here, the Live Bottom Bins are overhead, and can be used as batching bins or as weigh bins.

They consist of a static bin and a Bin Activator in one self-contained unit. The vibrating, or Bin Activator, section of the unit has an integral vibrating baffle which promotes flow from the upper regions of the static bin, relieves headload and prevents compaction at the outlet. A recent problem material at Cowles was an adhesive in flake form which bridged in storage. The Live Bottom Bin keeps it moving. These units also permit trouble-free handling of electrostatic materials such as potassium sulphate, which otherwise sticks and bridges. Another task has been blending hot-melt resins with an antistatic compound, and handling it in truckload quantities. To accomplish this, the company used the Vibra Screw Belt Feeder, one of the Heavy Duty Screw Feeders and the Vibra-Blender in combination. Since all units are capable of continuous, accurate flow production, high accuracy can be maintained throughout the 3-stage process of discharge from storage, feeding, and blending.

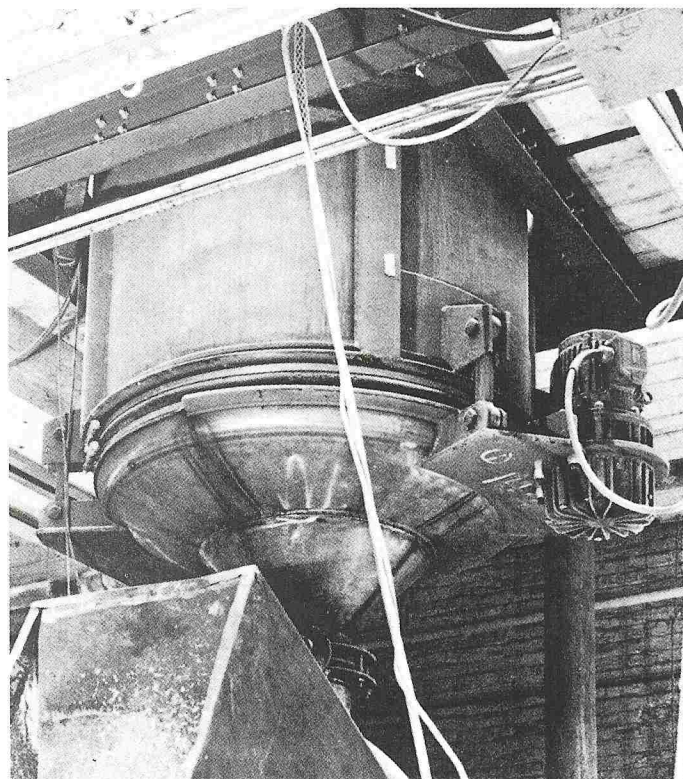
Results

As a result of a recent capital equipment improvement program, the Vibra Screw equipment was purchased, and since that time, Cowles Technology has achieved a 250% growth. V.P. and Gen. Mgr. Joe Connaughton says, "Vibra Screw

equipment will handle a wide range of materials, and we're very satisfied with its performance."



The blending of hot-melt resins with an antistatic compound has been accomplished by using a Vibra Screw Heavy Duty Screw Feeder (left), Volumetric Belt Feeder (right) and Vibra-Blender (not pictured) in combination. Both feeders deliver a continuous, accurate flow of material to the blender.



The Live Bottom Bin utilizes controlled vibration to permit uninterrupted flow of material. Cowles Technology V.P. and Gen. Mgr. Joe Connaughton says, "Vibra Screw equipment will handle a wide range of materials, and we're very satisfied with its performance."