

Live Bottom Bin Provides Room at the Top

Customer

Burry Division of The Quaker Oats Company, Elizabeth, N.J. Prominent bakers of crackers and cookies.

Problem

In expanding cookie production, Burry engineers required a flour supply hopper that would store the needed quantity of material, ensure controlled material discharge without bridging and fit within the 16 ft. height restriction of their equipment stack-up.

Solution

Vibra Screw Live Bottom Bin LBB-3-50, carbon steel construction, epoxy coated contact surfaces.

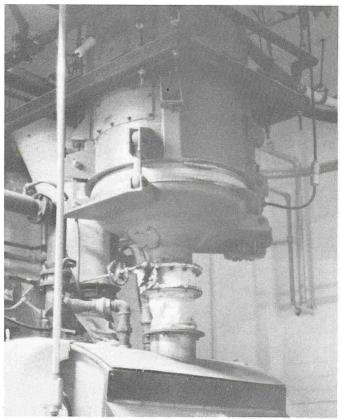
The Live Bottom Bin permitted using a larger diameter hopper with less vertical height while still maintaining a comparatively small discharge opening for connection to down-stream equipment.

Two different kinds of flour are delivered to the bin by a pneumatic conveying system with a weigh scale automatically controlling the filling procedure. The Live Bottom Bin consists of a static cylindrical bin combined with a movable bin bottom which is subjected to controlled vibration. The flour is hoppered without bridging, flooding or ratholing. A steady flow of material is supplied to the mixer below, each batch being emptied at a rate of a thousand pounds in about a minute and a half. As flour from the bin drops into the mixer, other ingredients are added and mixed.

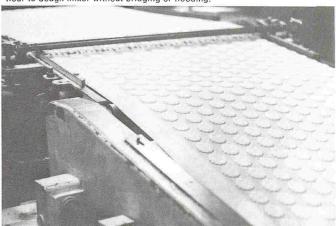
From there the batch goes to an automatic dough feeder. A rotary die forms the cookies which are then conveyed directly into the oven. After the cookies are baked, they are automatically packaged, having been untouched from the source of supply to the final package.

Results:

The Live Bottom Bin has been in operation now for about two years, and it has operated during that time without maintenance or downtime. It is virtually noiseless and its energy requirements are minimal. The project engineer at Burry says, "We couldn't have done a satisfactory job without the Vibra Screw equipment."



Live Bottom Bin employs controlled vibration to hopper flour to dough mixer without bridging or flooding.



Cookies move, untouched, in steady stream from dough feeder to oven, then to final automatic packaging.