



## Merck Chemical Solves Sticky Problem With Live Bottom Bin

### Customer

Merck Chemical Manufacturing Division, Merck & Co., Inc., Rahway, New Jersey. Major manufacturer of more than 500 fine, specialty and bulk chemicals for a variety of industries.

### Problem

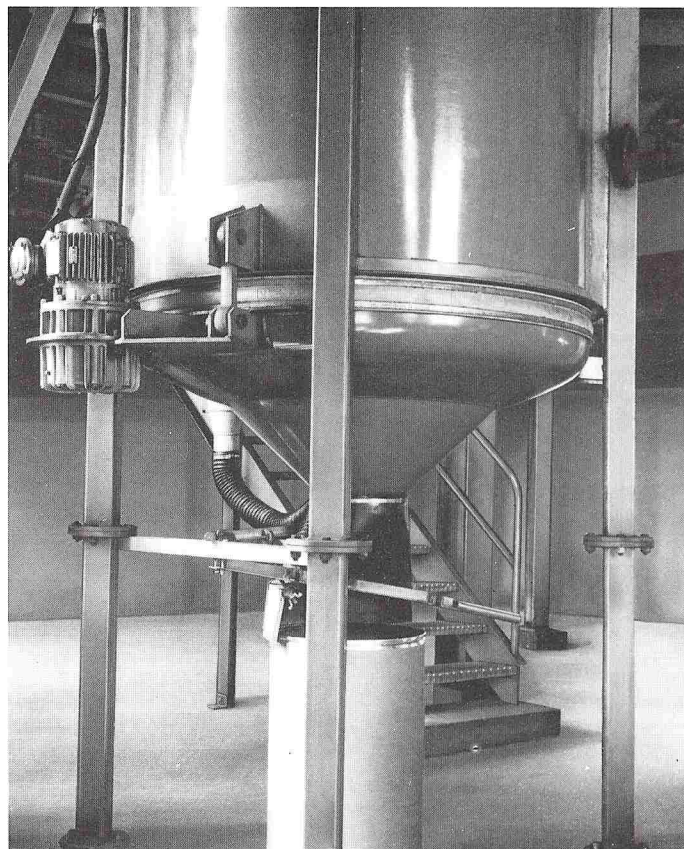
A chemical process at Merck requires storing the damp cake from a bottom drop centrifuge in suitable drums. The cake cannot be dropped directly from the centrifuge into the drums because the speed and volume of the discharge are too great for the drums to handle. Not only is a catching bin needed underneath the centrifuge, it must also be sealed to the bottom of the centrifuge since the process requires inerting by freeing it from oxygen. However, since the centrifuged material is not dry, and therefore does not flow readily by gravity, the process would not be feasible without an assured means of discharging the damp cake.

### Solution

1 Vibra Screw Live Bottom Bin LBB 5-100, 316 stainless steel construction, sanitary construction. Preliminary tests on moving a centrifuge cake material at the Vibra Screw test laboratory went so well that Merck immediately went ahead with plans for plant installation of the Live Bottom Bin. The Live Bottom Bin consists of a static bin with a capacity of 100 cu. ft. and an attached Bin Activator. Controlled vibration of the Activator provides positive discharge of material into the drums on demand. An integral baffle projects vibrations into the upper regions of the static bin and relieves compaction at the final outlet. The combination of vibrating bin bottom and integral baffle assures mass flow.

### Results

Because of its design and construction, the Vibra Screw Live Bottom Bin enabled Merck to accomplish its objective with one piece of equipment. When the centrifuge is inerted, the bin is inerted at the same time. The "live" bottom solves the remaining problem by assuring positive flow, on demand, of the wet cake.



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