

### Bin Activator "Only Way" to Move Fibrous Mineral

#### Customer

NYCO, a division of Processed Minerals, Inc., Willsboro, New York, processors of Wollastonite, today in great demand as a replacement for asbestos shorts in products such as refractory liners; also used as a filler in plastics, cement, and wallboard.

#### Problem

Wollastonite is milled to a fine powder whose bulk density is around 30 lbs. per cu. ft. Because of its light weight and fibrous nature, it has wide use in industry, but these very features cause it to have poor flow characteristics. It will not air slide to the bagging machine, its ultimate destination, and it mats, interlocks, and bridges in unaided gravity flow from storage. However, bulk storage would provide the most efficient method for processing if a way could be found to make it move readily from storage.

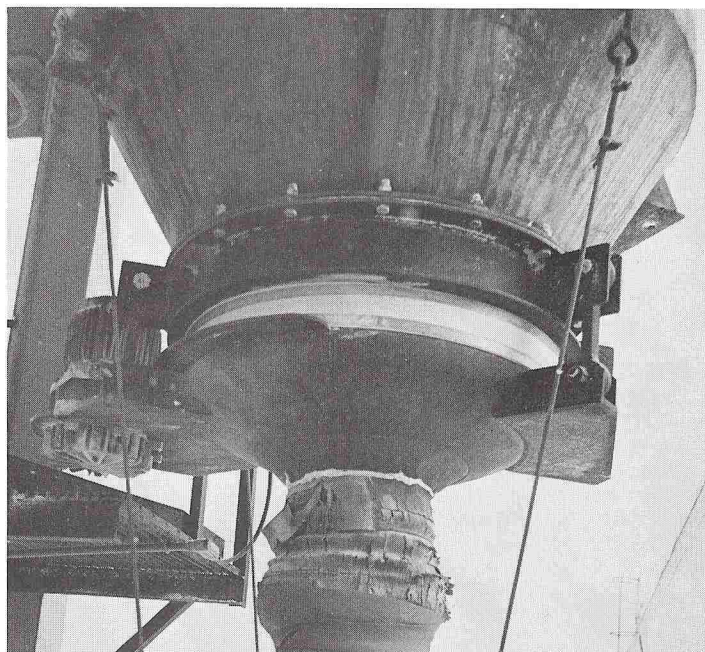
#### Solution

4 Vibra Screw Bin Activators, carbon steel construction. Three 7-ft. diameter, one 3-ft. diameter.

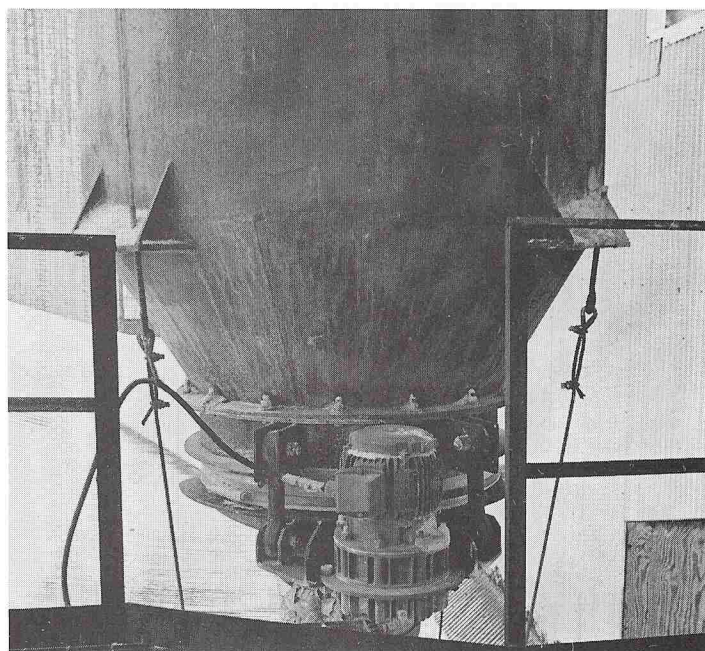
Bulk storage of the Wollastonite was made possible with the aid of Bin Activators flexibly mounted to the bottom of four storage tanks. The 7-ft. Bin Activators are mounted to tanks 10 ft. high by 10 ft. in diameter, with a capacity of 12-13 tons of material; the 3-ft. Bin Activator to a tank 3 ft. in diameter which is 8 ft. 6 in. high. All tanks are filled by bucket elevators. The Bin Activators employ controlled vibration of the Activator, an integral baffle and the material in the bin, but not the bin itself. The baffle directs vibrations high up into the bin, preventing bridging and keeping the material mobile and free flowing. Material is discharged freely on demand from the Bin Activators to an air-operated force-flow auger-type packer, which packs it into 50-lb. bags at a rate of 3 tons per hour.

#### Results

NYCO has found that only Bin Activators move Wollastonite out of storage successfully. Bin Activators have operated efficiently for them since 1964 with a minimum of maintenance. In fact, the company has had such good results that they recommend the use of Bin Activators to their customers who plan bulk storage of Wollastonite.



NYCO has found that only Bin Activators move Wollastonite, a replacement for asbestos shorts in various products, out of storage successfully and recommends them to their customers who plan bulk storage of the material.



Controlled vibration of the Bin Activator, an integral baffle and the material in the bin—but not the bin itself—is supplied by a patented gyrator.