

## Vibra Screw Helps Mining Company Meet EPA Requirements

### Customer

Homestake Mining Company, Creede, Colorado.

### Problem

In order to meet environmental requirements for discharge water, it is necessary for Homestake Mining Company to treat the water with hydrated lime for pH control. Lime can be somewhat difficult to handle because of its tendency to cake and hang up or bridge in storage. And, of course, any disruption to even, accurate flow of the lime is detrimental to proper pH control.

### Solution

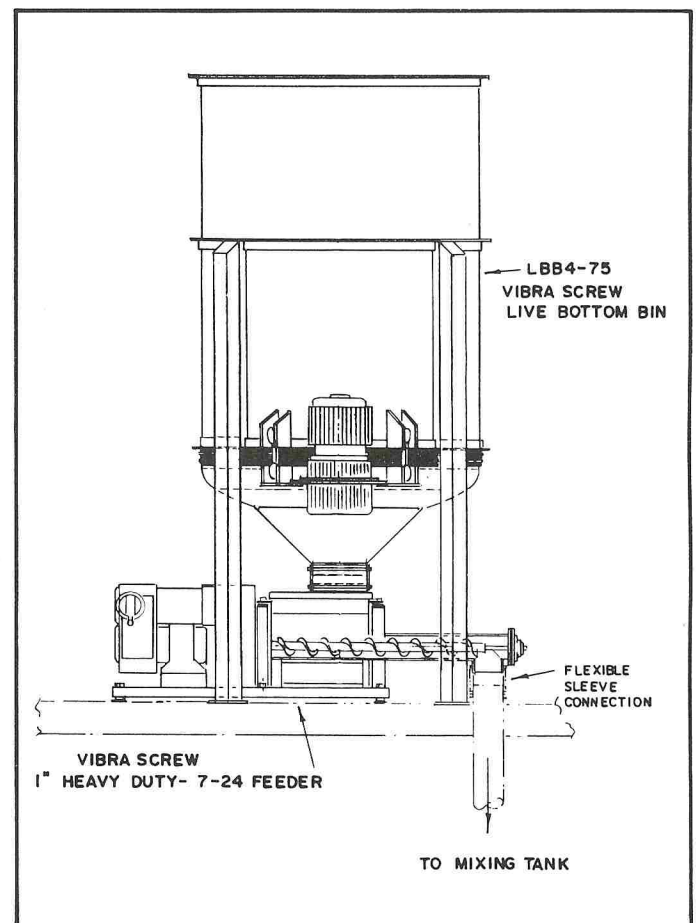
1 Vibra Screw Live Bottom Bin, LBB 4-75, carbon steel construction.

1 Vibra Screw 7-24 Heavy Duty Feeder, carbon steel construction, 1 in. flight screw and tube.

The Live Bottom Bin provides a steady flow of lime, and the Heavy Duty Feeder meters lime into the mixing tank with the accuracy needed for correct treatment. After the lime is first screened with a coarse screen, it is dumped from 50 lb. bags into the Live Bottom Bin, which has a capacity of 75 cu. ft. The Live Bottom Bin is a self-contained unit combining a static cylindrical bin and a Bin Activator, which is subjected to controlled vibration. An integral vibrating baffle located just above the discharge outlet of the Activator promotes flow of material from the upper part of the static bin, eliminating bridging and ratholing. The combination of the vibrating bin bottom and integral baffle assures mass flow to the Heavy Duty Feeder. This volumetric screw feeder provides high accuracy plus 24-hour a day service. The entire trough, screw and tube assembly of the feeder vibrate, conditioning the material to a constant bulk density. The resultant feed accuracy is  $\pm 1-2\%$ , minute to minute.

### Results

The Vibra Screw Live Bottom Bin and Heavy Duty Feeder have been in operation for three years at Homestake Mining Company. Lime is handled efficiently, without hangups, and the flow of material is even and steady, with the accuracy required for consistent, day-in day-out pH control.



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