

### Bin Activator Eliminates Ratholing in Foundry Storage Bin

#### Customer

MacAdam Aluminum & Brass Foundry, Portland, Oregon. Manufacturers of bronze bushings and aluminum castings, principally for the electrical and ship repair industries.

#### Problem

Return sand at the MacAdam Foundry was formerly stored in three 40-ton hoppers. Because of its tendency to stick, lump, and clog, the sand hung up when it was necessary to move it out of storage. It was subject to ratholing, and the only way it could be moved was manually, by laboriously prodding it out.

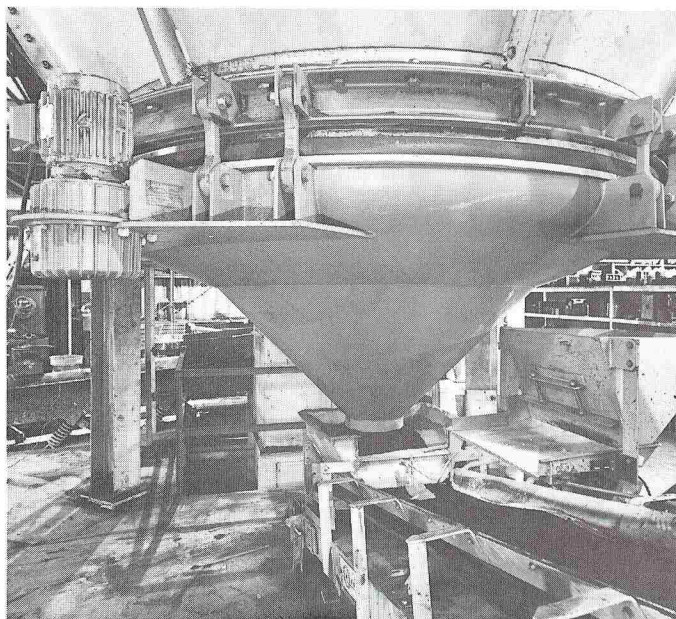
#### Solution

Vibra Screw Bin Activator, 10 ft. diameter.

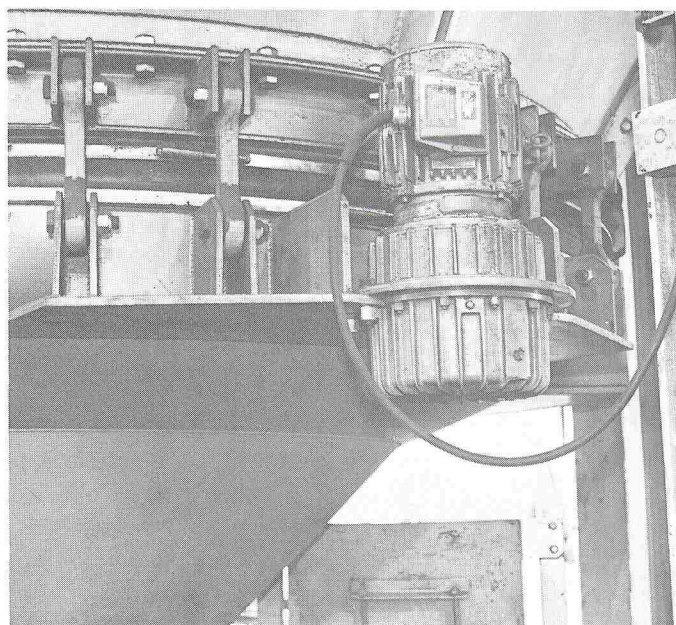
MacAdam now uses a Vibra Screw Bin Activator, attached to an overhead storage tank. The Bin Activator is flexibly fitted to the storage tank bottom. Controlled vibration provided by a special oil-lubricated gyrator causes the Activator and the bin contents—but not the bin itself—to be vigorously vibrated, resulting in immediate and positive discharge of the sand to a conveyor belt below it. Ratholing and overhead bridging are inhibited by the action of an internal baffle which relieves headload at the same time that it directs vibrations high into the storage tank. The conveyor belt transports the sand directly to a Ringmullor for mulling.

#### Results

The problem of ratholing of sand in the storage bin has now been completely eliminated. Prodding is no longer required to get sand moving. The Bin Activator delivers sand to the muller in a steady, consistent flow, with consequent dollar savings. Other benefits are reduced downtime and low maintenance.



The Bin Activator provides immediate and positive discharge of return sand to a conveyor belt.



A patented oil-cooled and oil-lubricated gyrator causes the Activator and the bin contents—but not the bin itself—to be vigorously vibrated. Note the heavy duty forged steel hangers to the left of the gyrator.