

### Sand handling capacity doubled with aid of Bin Activators

#### Customer

Atlantic Foundry Company, Akron, Ohio. Makers of gears, bearing housings and platens, ranging from high carbon to low alloy.

#### Problem

In expanding production at Atlantic, a new sand handling system was planned which would deliver sand from storage silos on demand, in a uniformly dense condition, without ratholing or wedging at the outlet. The most critical functions were delivery of shakeout sand on a continuous basis and reliable delivery of conditioned sand by batch. Another requirement of the system was as much storage capacity as possible in a limited headroom area.

#### Solution

Two Vibra Screw Bin Activators, carbon steel construction:

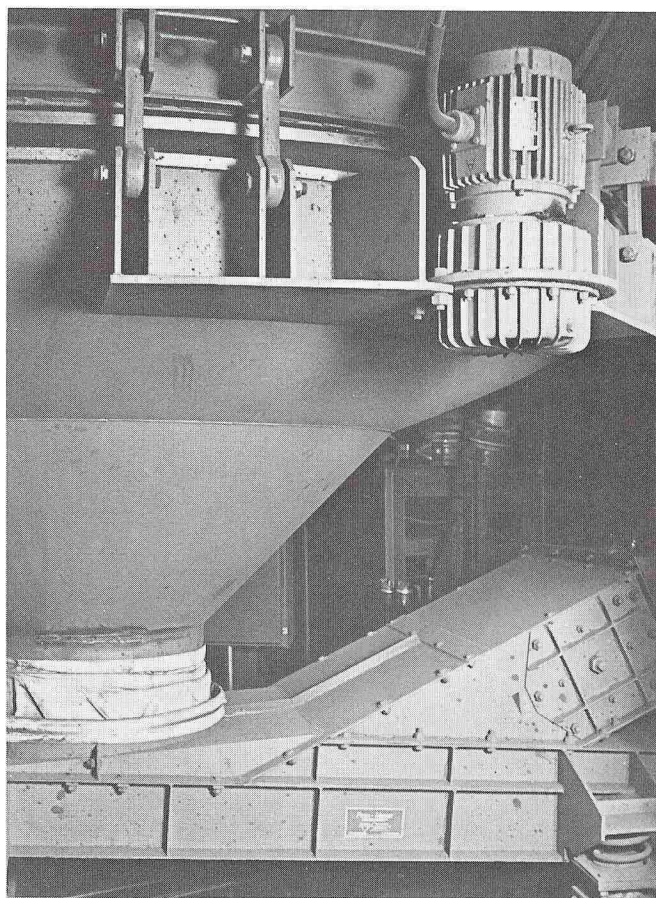
- One 8-ft. diam. for conditioned sand
- One 12-ft. diam. for shakeout sand

Conditioned sand is delivered mechanically to a 15-ft. diam. by 12-ft. storage bin with square sides, which is subject to packing and ratholing. Both of these problems were eliminated by the Bin Activator. Flexibly suspended from the bottom of the bin, the Activator gyrator produces powerful thrusts which shake the activator, the baffle and the contained material, but not the bin. The sand is discharged in an uninterrupted flow to a vibrating conveyor. It is 24-25 mesh, 85-90 lbs. per cu. ft., and each batch of 4500 lbs. must be delivered within 100 seconds.

Shakeout sand, with a bulk density of 90 lbs. per cu. ft. and +100 mesh, is stored in a bin 15-ft. in diam. by 19-ft. The Bin Activator provides unimpeded discharge of this sand to a vibratory feeder at a rate of 70 tph. The patented dished head design of the Bin Activator permits maximum storage capacity with a minimum of headroom.

#### Results

Atlantic's new system has doubled former sand-handling capacity, with a minimum of maintenance and downtime. Mr. Marcel Reymann, President, says that the success of the system would not have been possible without the dependable performance of the Vibra Screw equipment.



Bin Activators at Atlantic Foundry provide uninterrupted flow of both conditioned and shakeout sand from storage.