

Bin Activator Expedites Casting Operation Pays For Itself In Nine Months.

Customer

Berlin Foundry, Perfex Cast Metals Division, Berlin, Wisconsin, producers of grey and ductile iron castings.

Problem

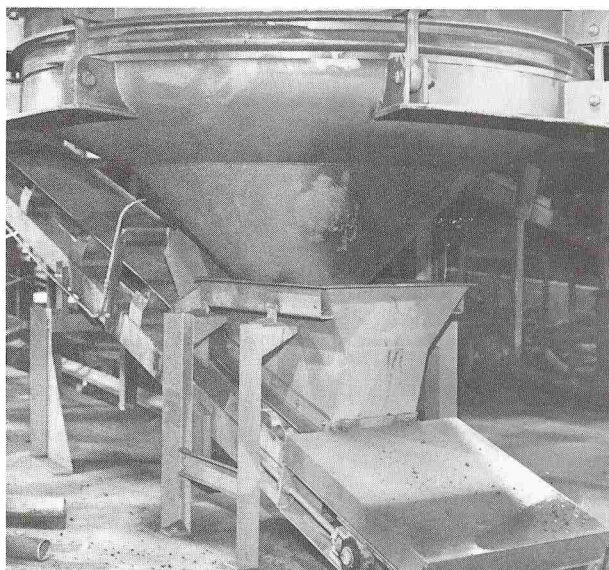
Berlin Foundry uses green molding sand in their casting operation. A continuous and even feed of the 100 lbs./cu. ft. material is required for the operation to work efficiently. Because of its characteristic stickiness and tendency to lump, the material created problems of bridging and ratholing in a 3,480 cu. ft. square storage bin. Discharge to a conveyor belt was erratic, causing poor feed, slowed production, and unacceptable molds.

Solution

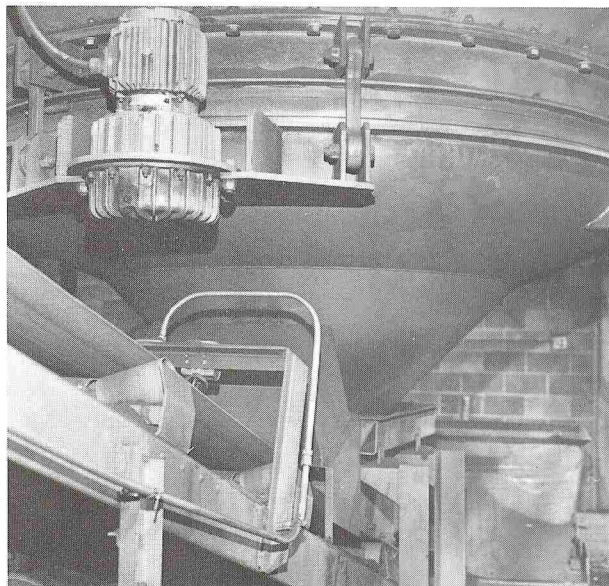
A Vibra Screw 8-ft. diameter Bin Activator. The patented Bin Activator was flexibly fitted to the storage bin bottom. Under the action of a special oil-lubricated gyrator, the unit, but not the bin, is vigorously vibrated, causing immediate and positive discharge. An internal baffle relieves headload from the outlet while directing vibrations high into the bin. This discourages overhead bridging.

Results

The Vibra Screw unit has eliminated all previous sand hang-up problems, and consistently delivers sand to the muller. According to Robert Wendt, Berlin Purchasing Agent, the Bin Activator has increased production by decreasing downtime and poor mold quality. Operating costs have been minimal with low horsepower requirements and little maintenance. The Bin Activator is estimated to have paid for itself in nine months.



Sand is discharged from storage bin to a conveyor belt by an 8-ft. Bin Activator.



Gyrator (upper left) produces powerful horizontal thrusts which keep sand moving without hang-ups.