

Bin Activators Clear Up Blockages In Food-Mix Packaging Lines

Customer

Crescent Manufacturing Company, Seattle, Washington, manufacturer of spice and soup mixes.

Problem

Crescent packages a variety of spice and soup mixes in cans. The cans are filled by two vertical filling machines at production rates of 6,000 lbs. an hour. Material supply for the filling machines is provided from 54 cu. ft. hoppers. Most of the spices are dry and free-flowing, but some are sticky and tend to bridge. The soup mixes are sticky and hard to move. Under gravity flow, the products bridged and plugged in the hopper cone sections and discharge tubes. Pneumatic side-bin vibrators were only occasionally helpful. To clear the blockage, a workman usually had to resort to banging on the bins or prodding the balky material with a rod.

Vibra Screw Equipment

Two 3-ft. diameter Bin Activators, stainless steel construction.

Solution

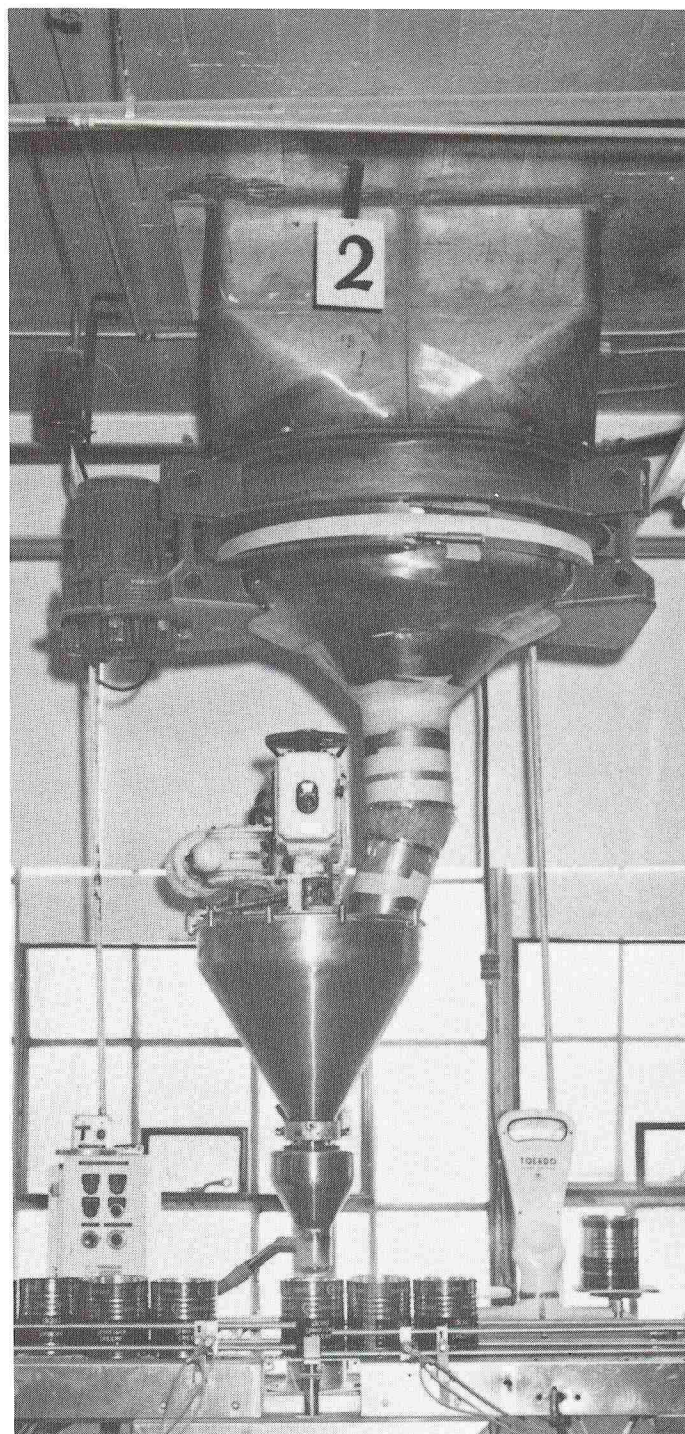
Crescent decided to try a Bin Activator on one of the bins; if it worked out, they would then buy a second for the other bin.

The patented Bin Activator is a vibrated discharger flexibly attached to the enlarged opening of the storage bin. An oil-lubricated gyrator vibrates the unit and the contained material but not the bin. An internal baffle directs the vibrations high up into the storage bin while relieving headload from the outlet. The result is positive discharge of material without bridging or clogging.

Results

With the installation of the first Bin Activator, blockage was eliminated at that bin, and with a now continuous flow, packaging output was increased 50%. Shortly thereafter, the company purchased a second Bin Activator for its other filling machine.

The Crescent Company management estimates that, through improved rate of flow and elimination of the constant attention formerly required to break up blockages, the equipment has paid for itself in twelve months.



Filling machines at Crescent Mfg. maintains production rate of 6000 lbs/hr. with aid of Vibra Screw Bin Activators.