

VIBRA SCREW CASE HISTORY



C-226

Eight Bin Activators Help Keep Production Moving at Warner-Lambert

Customer

Warner-Lambert Company, Anaheim, California plant, facility for production of Clorets and Bubblicious gum.

Problem

Both granulated and powdered sugar are ingredients of the company's pressed mints and gum. When the Anaheim plant began operation around 1973, the decision was made to handle the sugar in bulk, in order to obtain the substantial savings possible over bag or drum handling. All the sugar, which has a bulk density of 50-55 lbs. per cu. ft., is granulated when brought in and is ground down as needed to 10 micron particle size. Sugar is hygroscopic, and the pulverized sugar is extremely tacky, to the extent that it will stick to the walls of the bins. Although it is free-flowing when dry, it frequently bridges in storage.

Solution

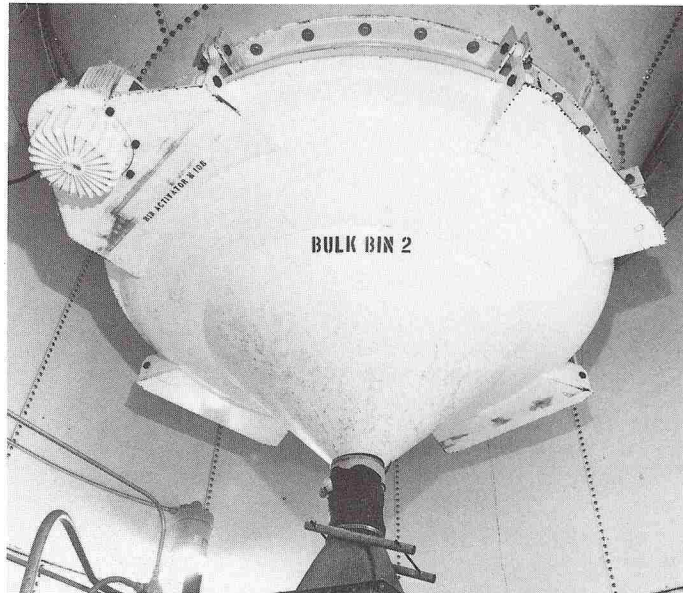
8 Vibra Screw Bin Activators, sanitary construction; (1) 8-ft. diam., (7) 3-ft. diam.

Sugar brought in by rail car is stored in a large silo outside the plant. The sugar silo, 12 ft. in diameter and about 30 ft. high, has an 8 ft. diam. Bin Activator mounted on it to provide immediate flow on demand. From storage, the sugar is conveyed pneumatically to the sugar mill where it is pulverized and then conveyed pneumatically into process. Bins and weigh hoppers in the milling system range from 4 ft. to 5 ft. in diameter, and all of them have 3 ft. diameter Bin Activators attached. These vibrated bin dischargers replace the converging bottom of a static bin, removing the compaction area which is the major source of flow problems. Powerful vibratory thrusts of a gyrator vibrate the Bin Activator and the contained sugar, but not the bin. An integral baffle, mounted above the outlet, transmits vibrations to the sugar up in the bin, preventing bridging. The baffle also relieves headload from the outlet. The vibratory thrusts throw the material horizontally toward the discharge outlet, producing a steady, uniform flow of sugar into process.

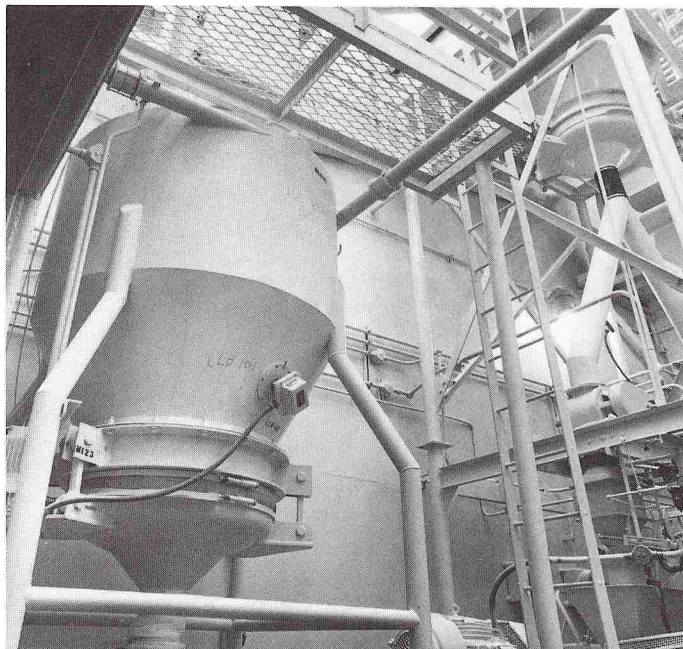
Results

Warner-Lambert has now had several years of trouble-free operation with their Bin Activators. Their success with pressed mints led to the instal-

lation of Bin Activators in 1978 to handle sugar in a new gum operation. At this writing, they have just ordered four more Bin Activators to meet current production needs.



The sugar silo at Warner-Lambert's Anaheim plant has an 8-ft. diameter Bin Activator mounted on it to provide immediate flow on demand. Powerful vibratory thrusts of a gyrator (left) vibrate the Bin Activator and the contained sugar, but not the bin.



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