CASE HISTORY

Bin Activator Keeps Rock Salt Moving, Salts Away Savings

Company

System designed by International Salt Company, Clarks Summit, Pennsylvania.

Problem

A customer of International Salt uses evaporated/granulated salt as a curing agent for country hams. The salt ranges in size from 25 to 80 mesh, is mostly 45 mesh, and has a bulk density of around 70 lbs. per cu. ft. It used to be handled manually; workers dumped it from 80 lb. bags into a mix tank. It was not considered feasible to store the salt in bulk because of the difficulty of moving it out; it cakes, hangs up on the bin sidewalls, ratholes, and bridges. Manual handling was arduous, slow, and hard on the workers. Further, it was costly, because it is a lot more expensive to buy in bags than in bulk.

Solution

Vibra Screw Bin Activator, 5 ft. diameter, preassembled mounting ring, 304 stainless steel construction.

Having had previous successful experience with Bin Activators, International Salt recommended a new method to their customer: the use of a fiberglass bin in combination with a Bin Activator. The bin has a capacity of 50 tons. The Bin Activator is flexibly mounted below it. The Bin Activator employs controlled vibration to keep the salt fluid and mobile. This is provided by powerful horizontal thrusts of a gyrator, and an integral baffle in the Activator resolves the horizontal thrusts into vertical impulses which extend far up into the material in the bin. The salt is thus prevented from hanging up, ratholing, or bridging. It flows freely on demand.

Results

The International Salt system has performed even better than expected for their customer. Benefits are fourfold: 1) Storage space is saved, since there are no bags or pallets needed; 2) bag disposal is no longer a problem; 3) bag handling is no longer required, with its high cost, delays, and worker hazards; and 4) cost savings are achieved of bulk over bag, increased production, and greater production safety. The system, now completely automated, has stood the test of time, having now given four years of dependable day-in, day-out service.



The use of a Bin Activator helped International Salt's customer get not one, but four, specific benefits (see Results). At this writing, the automated system has already given four years of dependable service.