



Whitepaper

## **The Design and Operation of Bin Activators**

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The Bin Activator was developed almost 20 years ago in response to the basic processing need for reliable material flow from storage. At the time of its conception volumetric vibrator feeders which could meter a variety of materials with accuracies of  $\pm 1$  to 2%, were gaining greater acceptance throughout the industry. However, as with all processing units, their performance was dependent upon a continuous supply and flow of material.

Existing bin discharge methods such as bin vibrators and air injection methods, could not be relied upon to provide the flow characteristics required for optimum feeder performance. As a result, a concentrated effort was mounted at that time to find a reliable way to move difficult materials from storage.

The vibrated bin discharger or Bin Activator rapidly proved to be successful in dealing with a wide range of storage problems. Vibrators and air injection methods had a limited success on small hoppers where high headloads did not have to be contended with, the Bin Activator on the other hand, could be used on hoppers of almost any size, regardless of headloads. In addition mass flow designed static hoppers could not accommodate different or even slight changes in a given material's characteristics, the Bin Activator on the other hand permitted a certain hopper to discharge a range of materials, regardless of certain variations in their physical properties.