

## Hopper Discharge Aids

Not all materials flow freely from a hopper, storage silo, bin or other container. Their flow characteristics largely depend on the degree of coarseness in their particle shape and the amount of moisture or semi solid matter in their content. Different solutions for assisting material flow are required as the type of flow aid which may work with one material may not necessarily suit another, or even another grade of the same material.

For these reasons, Spiroflow offers a wide selection of flow promoters to suit the characteristics of various materials. Our experience over many years has shown that the great majority of handling problems can be solved with their use.



### AIR FLUIDIZATION

Typical Applications: Powders, Pigments, Lime & TiO<sub>2</sub>

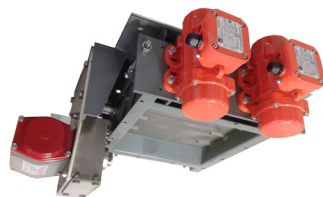
Air fluidization is ideal for materials that tend to readily fluidize. It provides uniform flow and discharge of dry bulk materials through aeration and hopper wall vibration. This method also prevents bridging, rat holing and compacting.



### PNEUMATIC OR ELECTRIC VIBRATION

Typical Applications: Cohesive Materials

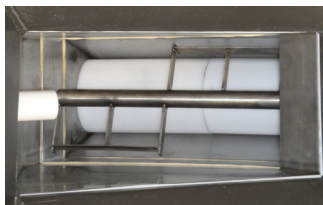
Vibrators are totally enclosed and can speed the flow of bulk materials through any Spiroflow hopper, aiding the efficiency of your material handling system.



### BIN ACTIVATOR (SBA-300, SBA-600)

Typical Applications: Pigments, Iron Oxide

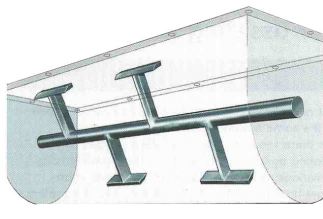
The feeder blades are fully adjustable for accurate and repeatable control of solids flow. Energy is imparted directly into the solids by the vibrating blades to maintain flow. Close tolerance blades provide positive shut-off of solids flow.



### PADDLE TYPE AGITATOR AG1/P

Typical Applications: Certain Sugars

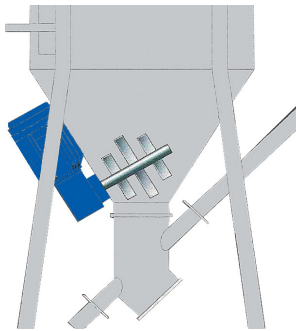
Other Soft, Sticky Materials These materials tend to behave like highly viscous liquids and require a moderate but positive pumping action in a downwards direction to be delivered to the conveyor. This is provided by paddle blades which are suitably angled to apply a downwards pressure to the material and prevent bridging.



**BEVELED T-BAR AGITATOR AG1 /BT**

Typical Applications: Warm, sticky or compressible products

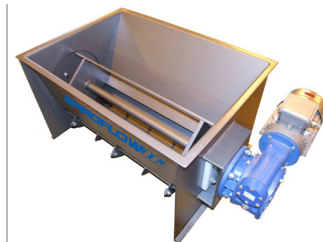
The T-Bar hopper discharger, with its beveled cutting edge, clears the base of the hopper and breaks down product with a tendency to adhere and smear, causing problems when feeding into an integral flexible screw conveyor. It has been widely used in receiving hoppers under mixers which discharge warm product, before conveying by flexible screw to a compaction or tableting process.



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**FRIABLE MATERIAL CONDITIONER (FM100, FM200, FM300 & Custom)**

Our Friable Material Conditioner is furnished with a mesh to ensure only material 'conditioned' to the correct specification passes to process or packing. Construction material choices include carbon steel, coated carbon steel, 304 or 316 grade stainless steel with a variety of finishes - all as the application dictates. Options include a pull out grid for easy cleaning or changing to a different material conditioning specification.

**How Can Spiroflow Help Your Business?**

Contact us today to discuss your specific applications and needs.