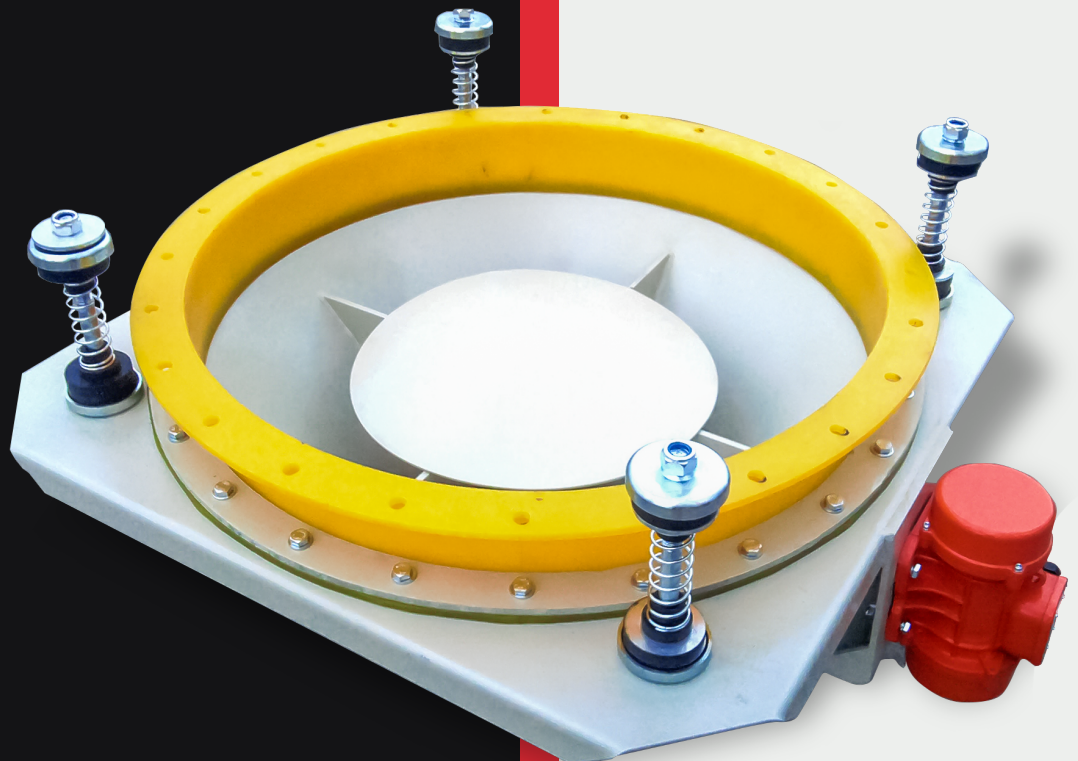




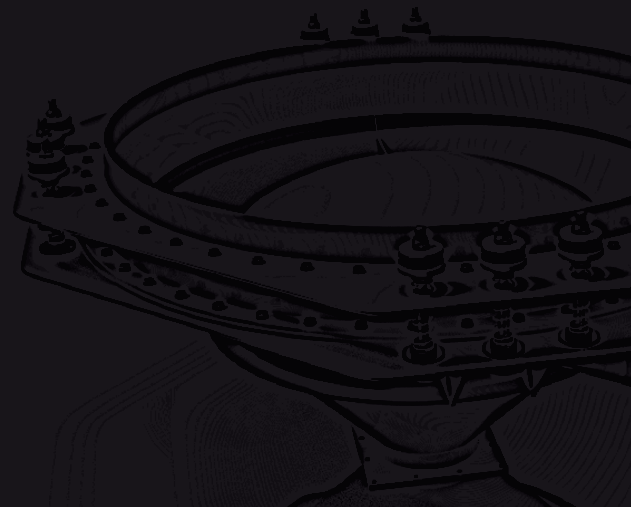
# VIBRATING BIN ACTIVATORS

FOR SMOOTH BULK SOLIDS FLOW



# What is a BIN ACTIVATOR?

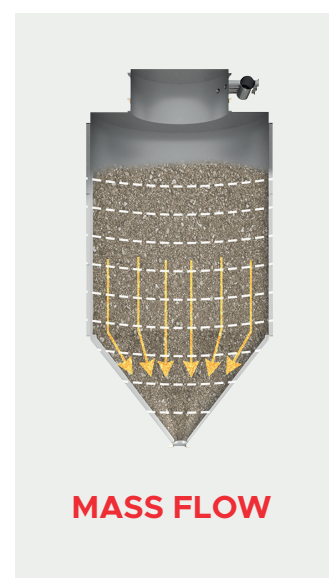
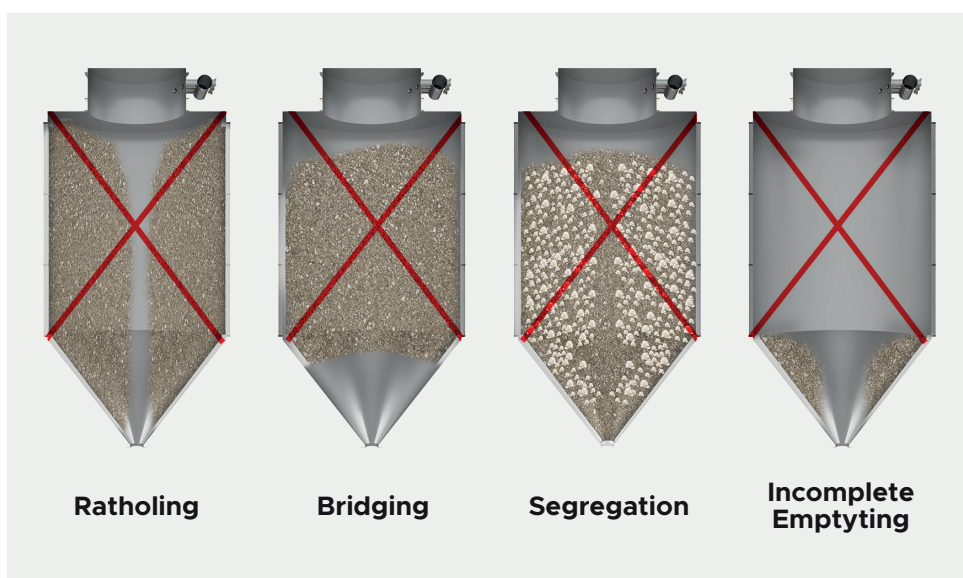
A bin activator is a conical-shaped equipment used to provide continuous gravity flow of dry bulk materials. It is used to feed downstream equipment such as conveyors, hoppers, rotary feeders etc., installed to its outlet port.



## How does a BIN ACTIVATOR work?

During operation, mild vibrations of the bin activator generated by the synchronised vibrator and motor are transmitted to the dry solid material inside the silo resulting in fluent material flow through the bin activator into the connected unit.

- The system's vibration levels can be easily adjusted.
- The motor is housed in a single seal enclosure with no belts to slip or break. This ensures that there is no oil leakage, hence, preventing material contamination.
- Positive discharge is attained if the outlet is large enough and there is no downstream equipment to impede the flow of the bulk material.
- In addition to the outlet being large enough, a secondary baffle can be utilised. The secondary baffle helps prevent the jamming and compacting of the bulk material at the outlet.



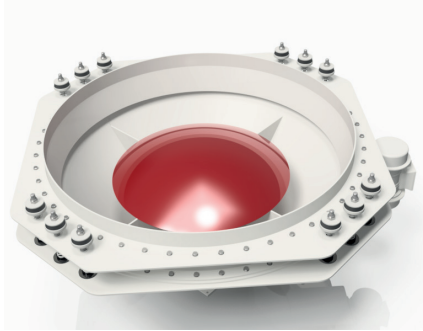
**Avoid Bulk Material Flow Problems  
in Silo / Hopper / Bin**



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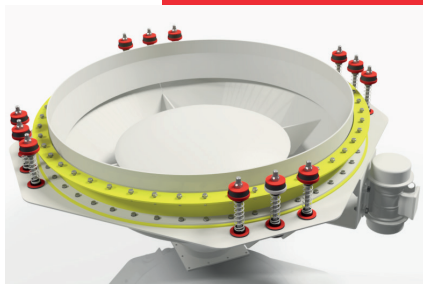
# Bin Activator Components

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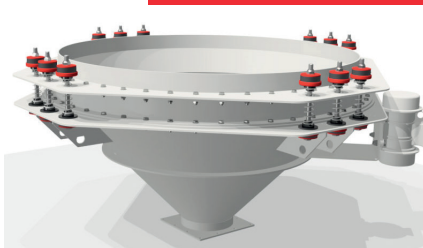
## Baffle Plate

An internal tapered-conical shaped baffle plate is positioned at the diameter centre of the bin activator. It facilitates bulk material flow from an upstream equipment by inducing vibrations directly to the material. Our baffle plates come in various configurations (convex plates and cone plates) and angles (15°, 30°, 45°, or even 60°) depending on the flow characteristics of the handled bulk material and type of application.



## Polymer Seal

Proper design and installation of the polyurethane seal, prevents the seal from slipping off and the leakage of the dry bulk material. It is durable and resistant to high stresses caused by a vibrating motor.



## Spring Suspensions

Spring suspensions ensure that generated vibrations do not agitate the upstream equipment structure rather than the cone itself. They are externally mounted to offer full resilience to produced vibrations.



## Flange

A flange that is provided together with the bin activator is separately welded to an outlet (slightly above the outlet) of the silo on the production site. The vibrating bin discharger is bolted to the flange when installed to the silo.



## Vibration Motor

A vibration motor causes a bin activator to vibrate which results in a steady flow of dry bulk materials within the system. One or two vibratory motors can be externally installed to the system.

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# Bin Activator Models

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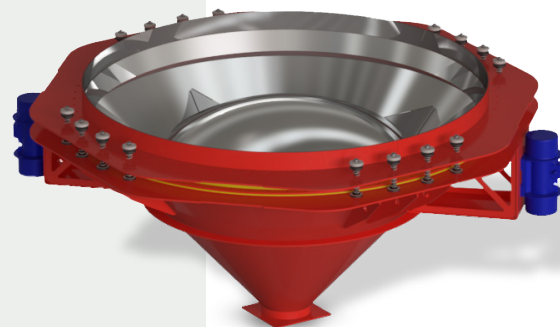
Vibrating bin dischargers are available in ST37 carbon steel, hardox steel and AISI304 stainless steel.

## STANDARD BIN ACTIVATORS

Polimak's standard vibrating bin discharger consists of a seamless carbon steel cone formed on sheet metal, a polyurethane seal, spring suspensions as well as a single electric vibrator.

### FEATURES

- An inlet skirt
- Material: ST37 Carbon Steel
- A polyurethane seal.
- A compact design
- Durable suspensions and flexible seal
- A broad range of intern baffles with respect to the application



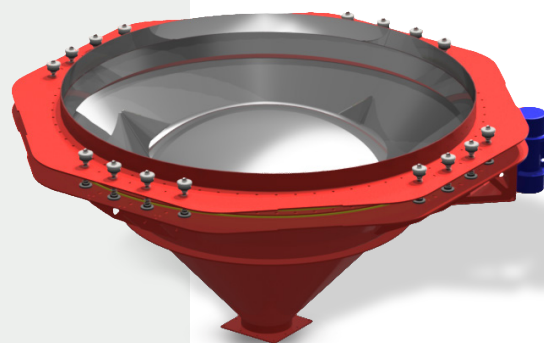
## FOOD GRADE BIN ACTIVATORS

Polimak's food grade bin activators are mainly produced from stainless steel with high-grade surface finishing. The mating parts are properly welded on both sides, thereby acquiring a perfectly smooth surface that reduces bulk material residue.

*The food grade vibrating bin dischargers are an ideal choice where minimal dry bulk residue is required and contamination of the bulk material has to be strictly avoided.*

### FEATURES

- Material: AISI304 Stainless Steel
- A silicone flexible seal.
- An inlet skirt.
- A broad range of intern baffles with respect to the application.
- A hygienic design.
- High-grade surface finishing.
- Durable suspensions and flexible seal.



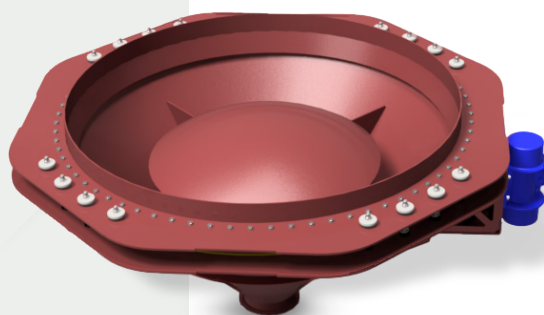
## WEAR RESISTANT BIN ACTIVATORS

Polimak's wear resistance bin dischargers consist of a seamless hardox steel cone, a polymer engineered seal, spring suspensions and a single electric vibrator.

*Manufactured from hardox steel, the wear resistance bin activators are an ideal choice for handling abrasive bulk materials. An inlet skirt plays a crucial role in prolonging the usable life span of the seal.*

### FEATURES

- Material: Hardox Steel
- An inlet skirt
- A polymer engineered seal
- A wide selection of interns baffles with respect to the application
- A robust and compact design
- Wear resistant surface
- Durable suspensions and flexible seal



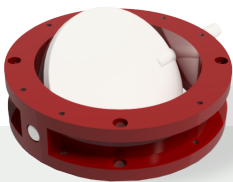


# Model Naming Table

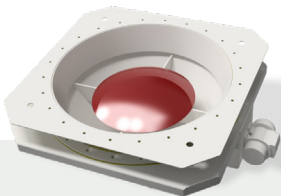
PTK 1500 / 12 – K – N

- **BIN ACTIVATOR**
- **Inlet Diameter**  
600, 900, 1500, 1800, 2350, 2500, 2600
- **Number of Dampers**  
4, 12, 16
- **Construction Material**  
K : ST37 Carbon Steel  
S : AISI304 Stainless Steel  
SS : AISI316 Stainless Steel  
HS : Hardox Steel
- **Options**
  - N : Standard Design
  - A : Conical Baffle Plate
  - B : Conical + Camber Baffle Plate
  - C2: 2 Outlets
  - C3: 3 Outlets
  - C4: 4 Outlets
  - F : Special Outlet Flange
  - S : Silicone Flexible Joint
  - O : Special Design

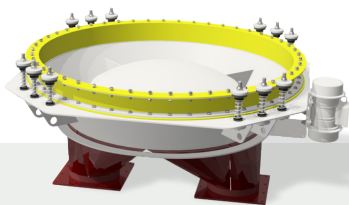
## Option and Accessories



Butterfly Valve



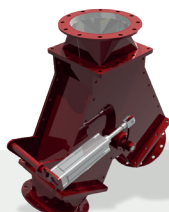
Deflector



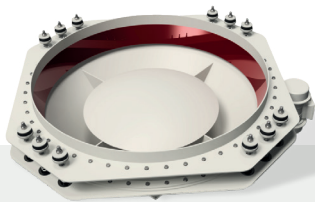
Multiple Outlets



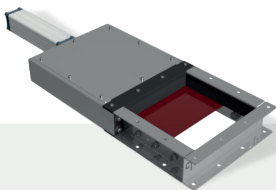
Secondary Baffle



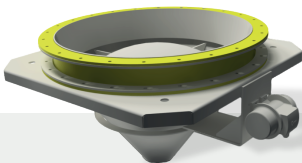
Diverter Valves



Inlet Skirt

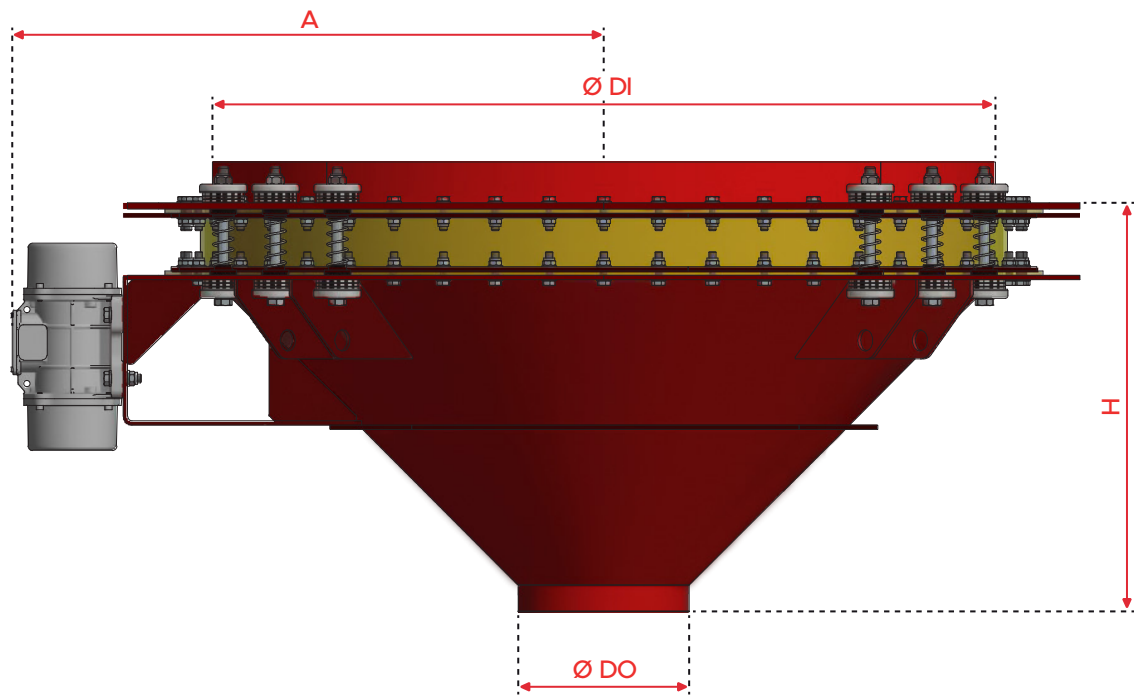


Slide Gate Valves



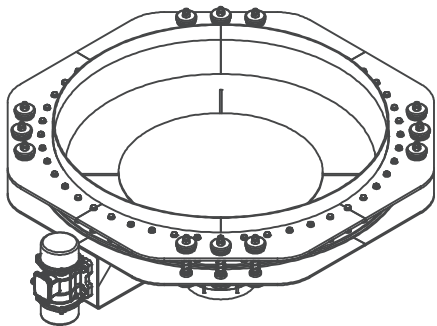
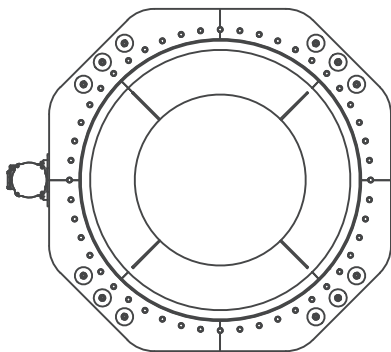
Flexible Connector Sleeve

# Dimension Table



DIMENSIONS TABLE

MODEL	A (mm)	ØDI (mm)	ØDO (mm)	H (mm)	No of Suspensions	No of Motors
PTK600	500	580	168	400	4	1
PTK900	685	880	219	520	4	1
PTK1500	1115	1480	323	760	12	1
PTK1800	1190	1780	323	910	12	2
PTK2350	1595	2330	406	1150	16	2
PTK2500	1720	2480	406	1290	16	2
PTK2600	1820	2580	406	1350	16	2



# Bulk Materials Handled by Bin Activators

Depending on the handled dry bulk material being handled, our vibrating bin dischargers are manufactured from carbon steel, stainless steel or other types of steel. These dischargers are used in various industries to process different dry bulk materials.



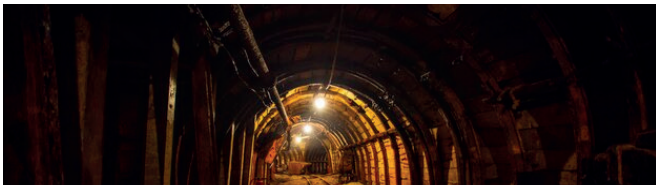
## Food industry

Some food bulk materials can be handled with standard bin activators because of their physical characteristics. However, high sensitivity dry bulk materials like baby food products, high-fat milk powder etc., require the use of food-grade bin activators. Cornstarch, protein powders, cornflour, and spices are some of the dry bulk materials that can be handled with our bin activators.



## Plastic industry

Plastic powders are simply plastic bulk raw materials used in the synthesizing of plastic products. These are fine particle-sized bulk materials. Plastic powders that can be processed using our bin activators include PVA powder, PVC powder, polyethene powder and many others.



## Mining and aggregate industries

Mining and aggregate industries are concerned with the handling of abrasive dry bulk solid materials. Due to the nature of the industries, ideal bin activators are wear-resistance bin activators constructed from hardox steel. Iron ore concentrates, copper powder, limestone, foundry sand, coal ash, cement etc., are some of the bulk materials processed by our bin activators.



## Chemical industry

Similar to the food industry, bin activators used in the chemical industry must be corrosion resistant and able to withstand harsh conditions. Standard and food-grade bin activators are an ideal choice for bulk material handling in this sector. Some of the handled bulk materials are urea, soda ash, chlorine powder, sulfur powder, activated carbon etc.

## Bin Activator Benefits

- Complete resilience to the vibrating dish head provided by special spring suspensions.
- Flexible seal connections at the inlet and outlet to ensure safe connections.
- Excellent performance with low energy consumption.
- Easy to fit and low maintenance.
- High operating efficiency.
- A housed motor in a single seal enclosure.
- Smooth discharge assurance.



# Application Photos



**Pneumatic Conveying Systems**



**Silo Top Jet Filter**

## Other Polimak Products



**Rotary Valves**



**Big Bag Unloader**



**Mobile Bulk Truck Loader**



**Loading Bellows**



**Roots Blowers**



**Storage Silos**



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