



**VIBRA SCREW INC.**

The most trusted name in dry solids processing.



## **Dry Polymer and Lime Batching and Metering Systems**

## **Sorbent Injection Systems – Mercury and Acid Gas Control**



Our innovative and technical experience in the waste water and flue gas / smoke treatment allow us to offer solutions for turnkey installations or integration of new equipment into your process lines. Our many years of experience in storage bin design, discharging, volumetric and gravimetric feeders, mixers and pneumatic conveying allow us to offer complete system packages.

- Soda Ash
- MagOx
- Lime Slurry (Quick/Hydrated)
- PAC
- Cement
- Polymer
- Other Bulk Chemical Handling Systems



Gravimetric Loss-In-Weight Lime Slurry System



Powder Activated Carbon (PAC) system with Bulk Bag Unloader, Volumetric Feeders, and eductor pneumatic conveying system



Polymer batch mixing system



Eductor and Wetting Cone Systems



Volumetric Screw Feeders



Gravimetric Loss-In-Weight Feeders



System & Process Control Packages



Batch Mix Tanks



Tank Agitator

## Vibra Screw Equipment



Material storage silos & bins



Bulk Bag Unloaders with flexible incline screw conveyors



Paper sack and container dump stations

## POLYMER and LIME MIX SYSTEMS

- Metering screw feed system for accurately and consistently dispensing dry polymers and lime into a secondary process ideal for water, wastewater and chemical processing applications
- Complete skid mounted system with aging/mixing tanks, pumps and piping
- Built-in hopper capacity of up to 10 cu. ft. (large available)
- Feed rate 0.03 to 200.0 cu. ft. per hour depending on feeder screw size
- Accuracy of within 1.0- 2.0% of volumetric feeder.
- Optional gravimetric feeding with integrated "Loss-In-Weight" system, .25 - 0.5% accuracy.

### **Standard and optional Features**

- Rugged steel frame protected by corrosion resistant finish
- Aging/mixing tanks and progressive cavity pump
- Built-in stainless steel gravity fed hopper
- Concentric helical overwind auger with overwrap or agitator screw
- Trough vibrator to assure high accuracy feeding
- Stainless steel feed screws from 3/8" to 4" diameter
- Water and dust proof NEMA 4X control panel with programmable variable frequency motor controller capable of remote installation
- 90 VDC, wash down gear motor with programmable SCR Controller in NEMA 4X enclosure (optional)

### **Options**

- Integrated "Loss-In-Weight" Feeder with programmable controller
- Custom auger styles and sizes
- HMI PLC touch screen motor controllers
- Wash down and explosion proof motors
- Wetting cones and conveying eductors
- Vibratory agitators
- Dust collectors
- Base stands and elevated loading platforms
- Feeder and scale are designed to accurately dispense:
- Dust Collection
- Storage Bins, Bulk Bag Unloader, Paper Bag Dump Station

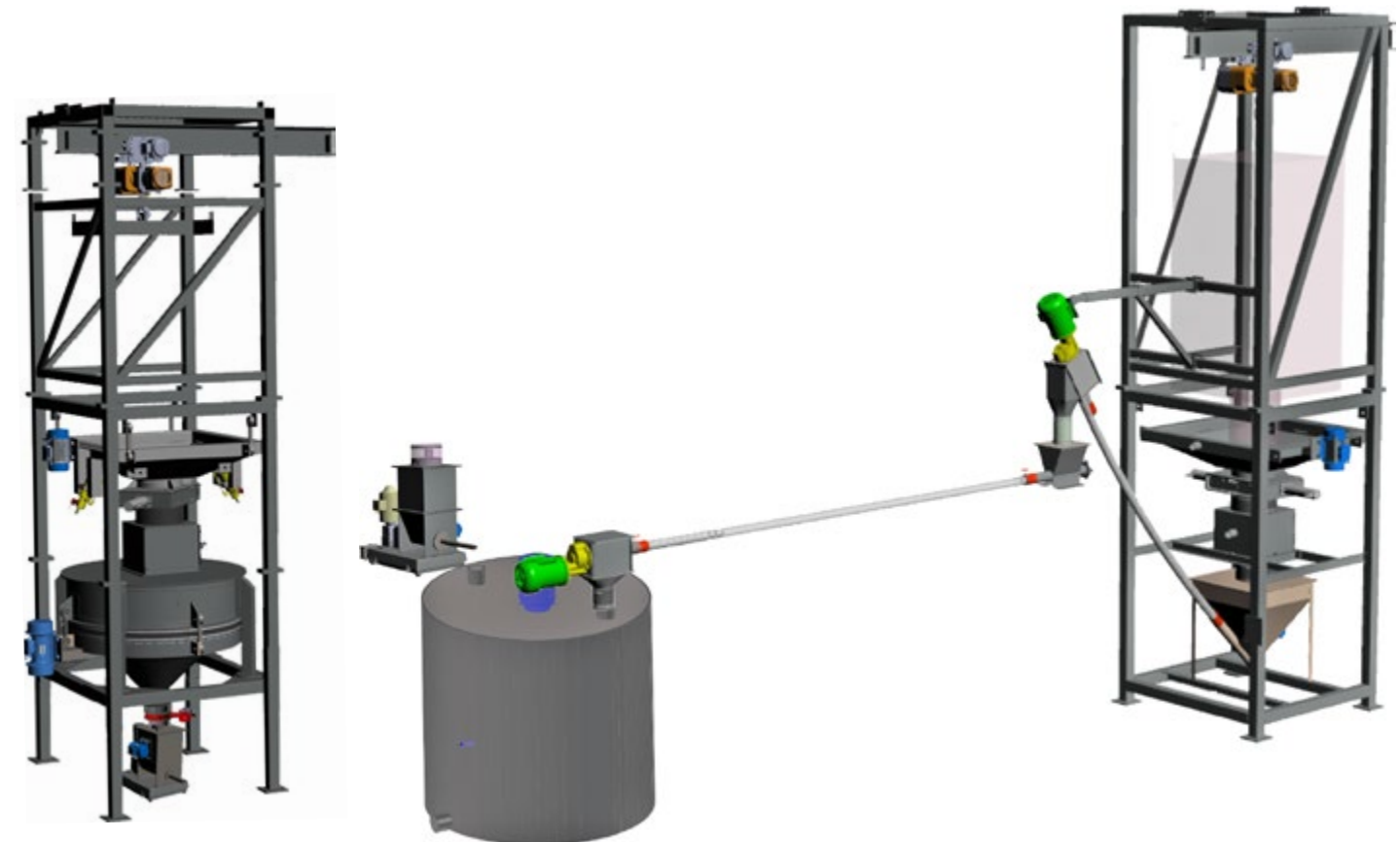


## POWDER ACTIVATED CARBON SYSTEMS

Vibra Screw offers sorbent injection systems for adding and mixing of sorbents such as hydrated lime, trona, sodium bicarbonate, or powdered activated carbon (PAC), into the exhaust gas stream.

Sorbent injection systems can include the following components, depending on application requirements:

- Bulk Bag Unloaders including:
  - Bag support hopper to seat and seal bulk bag;
  - Fork lift adapter or hoist and trolley;
  - Dust collection system;
  - Vibrator/gyrator on hopper.
- Messaging Paddles (optional)
- Flexible feeders for conveying materials to injection point via automatic refill.
- Metered feeders for accurate sorbent feed into gas system including both Volumetric or Gravimetric Loss-In-Weight.
  - Tandem or redundant system design using two feeders and injection system with single bag unloader
  - Integral hopper with level probes (volumetric)
  - Optional: Live Bottom surge bin with high/low level probes
  - Motor and gear reducer with motor controller mounted in control panel
  - Water and dust proof NEMA 4X control panel with programmable variable frequency motor controller capable of remote installation
  - 90 VDC, wash down gear motor with programmable SCR Controller in NEMA 4X enclosure (optional)
- Wet/dry slurry injection and gas mixing vessel,
- Regenerative or PD blower to produce motive air. Piping by customer.



# Keeping Dry Materials Moving

With a wealth of knowledge and experience in the use of controlled vibration to process dry bulk materials, Vibra Screw engineers have devised systems to handle most materials -- probably your material included.

As the leader in dry solids processing, our name is recognized and trusted worldwide in such diverse industries as:

## **FOODS**

Flour, Soy, Meal, Sugar, Vitamin Supplements

## **MINING**

Aggregate, Kiln Feed, Crushed Ores, Coal, Lime

## **CHEMICAL**

Pigments, Additives, Starch, Carbon Black

## **STEEL**

Foundry Sand, Ores, Binders, Ferrous & Non-Ferrous Additives

## **FOREST PRODUCTS**

Chips, Sawdust, Waste-byproducts

## **PLASTICS**

Regrind, Virgin, Colorant, Talc

## **ENVIRONMENTAL CONTROL**

Filter Aids, Resource Recovery, Lime, Soda Ash, Activated Carbon, Fly Ash, Solid Wastes, Scrap

## **ORDNANCE**

Ammonium Nitrate, Oxidizing Salts, Solid Base Propellants, Ammonium Perchlorate, HMX, RDX

## **AGRICULTURE**

Cattle Feed, Soy Bean Meal, Nutritional Supplements, Mill Feed, Spent Grain

## **PHARMACEUTICALS**

Calcium Carbonate, Aspirin, Sodium Bicarbonate, Ascorbic Acid



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# The Vibra Screw Product Line

**For additional information, ask for literature on the following:**

- AccuFeed
- Batching Systems
- Bin Activator
- Bulk Bag Filler
- Bulk Bag Unloader
- DE Feeder
- Heavy Duty Screw Feeder
- Loss-In-Weight Feeder
- Live Bottom Bin
- Live Bin
- Live Bin Screw Feeder
- Pan & Tube feeder
- Portable Bin Unloader
- Screener
- Storage Pile Activator
- VersiFeeder
- Vibra-Blender
- Vibrating Screens
- Volumetric Belt Feeder
- Weigh Belt Feeder
- Water Treatment Systems

## **THE VIBRA SCREW GUARANTEE**

If your Vibra Screw equipment doesn't perform in the service for which it was sold, we'll refund your money. Ask any other equipment manufacturer to put that in writing.

**No time limits. No conditions.**