

# Equipment for Dry Solids Processing



*Storing*

*Discharging*

*Metering*

*Weighing*

*Conveying*

*Sizing*

*Blending*



# The Most Trusted Name in Dry Solids Processing

**V**ibra Screw Incorporated was founded in 1955 by Eugene A. Wahl, whose experience in solving problems in the process industries led to revolutionary ways to discharge and meter dry solids.

Today, with a staff of experienced and talented engineers, technicians and craftspeople, Vibra Screw is the leader in solids processing, with high quality equipment to store, discharge, meter, convey, size and blend.

Vibra Screw serves its markets through a worldwide network of sales representatives, licensees and subsidiaries.







# Engineering the Right Solutions; Manufacturing to the Highest Standards

Vibra Screw is staffed with experienced, professional engineers who solve problems. From initial study, through testing and design, our goal is to satisfy your unique requirements efficiently and cost effectively.

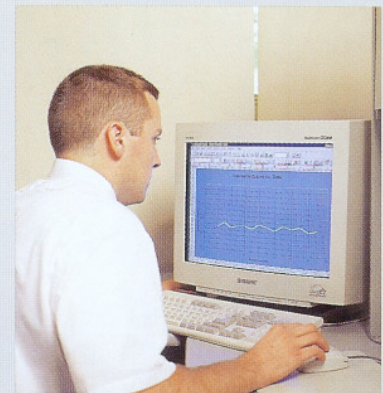
Our modern facility in Totowa, New Jersey, handles every aspect of equipment manufacture, from sandblasting, fabrication and assembly to full electronic control production.

We design to your requirements including USDA, FDA, ASME, AWS, BISSC and NRC. among others.

## Testing to Provide Confidence

Two specialized test labs provide Vibra Screw engineers with the hard data they need to make the right decision for your application. Our labs operate in conditions that simulate your plant environment, yielding results that support our recommendations. The Vibra Screw test lab library, which holds the records of over 15,000 tests performed on a broad range of materials, is also available to our engineers as an additional research resource.

Vibra Screw's full-scale test center features a 40-foot silo capable of storing, discharging and recirculating up to 1,500 cubic feet of dry bulk material per hour. We can accommodate Bin Activators up to 8 feet in diameter and feeders up to 10 inch diameter — the only test installation large enough to simulate most hopping and feeding requirements full scale — without compromise.



## Our Absolute Guarantee of Satisfaction

No other industry source stands behind its products with the confidence and assurance of Vibra Screw, because no other company engineers and manufactures to our uncompromising standards. This is our commitment to you:

**VIBRA SCREW EQUIPMENT IS UNCONDITIONALLY GUARANTEED TO PERFORM IN THE SERVICE FOR WHICH IT WAS SOLD OR WE WILL REFUND YOUR MONEY. PERIOD.**



# Storage and Hoppering

**M**oving materials from storage without clogging, bridging, ratholing and other flow problems has always been an industry challenge. Vibra Screw meets the challenge with an innovative line of storage and hoppering equipment. With more than 100,000 successful hoppering equipment installations, worldwide, Vibra Screw has the experience and equipment to handle virtually any application.

## **Bulk Bag Unloaders and Fillers**

The Bulk Bag Unloader provides a safe, dust-free and convenient way to handle and discharge bags. It is available in eight models to accommodate all styles of bags and discharge requirements. These range from a receiving hopper and frame for customer supported bags to a complete bag unloading station with integral bag hoist and trolley, conveyor, load cells and controls.

Vibra Screw Bulk Bag Fillers provide full or semi-automatic filling of bags in a completely dust free, high accuracy design.

## **Multi-Use Live Bottom Bin**

This unique, self-emptying bulk storage system combines a static cylindrical bin with the patented Vibra Screw Bin Activator in capacities from 3 to 1,200 cubic feet. Self-contained, pre-assembled and ready to install, the unit is extremely useful as a batching, portable or weigh bin, or where particle segregation is a problem.

## **Our Patented Bin Activator**

For positive, continuous flow of almost any material, our original Bin Activator is unmatched. It mounts under any existing round or square silo, whether concrete or steel. An available oil-lubricated gyrator is maintenance-free and guaranteed for 20,000 hours of continuous use.

## **The Live Bin**

Forget flow problems. With Vibra Screw's Live Bin, controlled vibration of the entire bin and contents conditions material to a uniform bulk density for positive discharge in capacities from 3 to 100 cubic feet. A flexible sleeve is not required, making the Live Bin especially suitable for sanitary applications.

## **Portable Bin Unloaders**

The Vibra Screw Unloader converts any portable or tote bin to a live bin during discharge. Bins lock onto the unloader platform quickly, where a gyrator vibrates the bin and contents to ensure consistent flow. Use these platforms during bin loading for denser more level materials.



*Bin Activator*



*Bulk Bag Unloader*



*Multi-Use Live Bottom Bin*



# Volumetric Feeders

Consistency and accuracy are mandatory in any dry material processing system, and Vibra Screw volumetric screw and belt feeders deliver both. They employ controlled vibration to control density variation and ensure smooth movement throughout the feed process. The result is  $\pm 1-2\%$  accuracy — consistently. Sanitary construction and a variety of control options are available in all models.

## Low Rate Screw Feeders

### VERSIFEEDER

Our VersiFeeder is the first volumetric feeder with a modular design, allowing one unit to adapt to the



Low Rate  
Screw Feeder  
(VersiFeeder)

broadest range of feeding applications, including:

- Standard feeder with static hopper, trough and feed screw
- Agitator conditioner feeder with secondary trough conditioning screw for semi-free flowing materials
- Controlled vibration feeder for non-free-flowing materials

### ACCUFEED™

AccuFeed combines all the performance benefits of the VersiFeeder at lower cost and with off-the-shelf availability. Composite materials of construction are extremely durable and meet FDA and USDA requirements.

These feeders offer rates to 650 cubic feet per hour, batch or continuous operation and feed accuracy of  $\pm 1-2\%$ .



Low Rate Screw Feeder  
(AccuFeed)

## High Rate Screw Feeders

### HEAVY-DUTY FEEDERS

Vibra Screw's Heavy-Duty Feeders, available in 15 sizes, expand your volumetric metering capability to a maximum of 9,800 cubic feet per hour. Controlled vibration of the trough, screw and tube ensures accuracies of  $\pm 1-2\%$  for hundreds of dry materials. Rugged construction allows operation 24 hours a day.



High Rate Screw Feeder

### SPECIALIZED SCREW FEEDERS

Materials such as diatomaceous earth, lime, certain pigments, etc., spell trouble for even the toughest standard metering feeders. Our specialized screw feeders get the lumps out and let you meter materials that tend to pack and clump, especially when moist. Available in six sizes to handle rates from .28 to 600 cubic feet per hour.

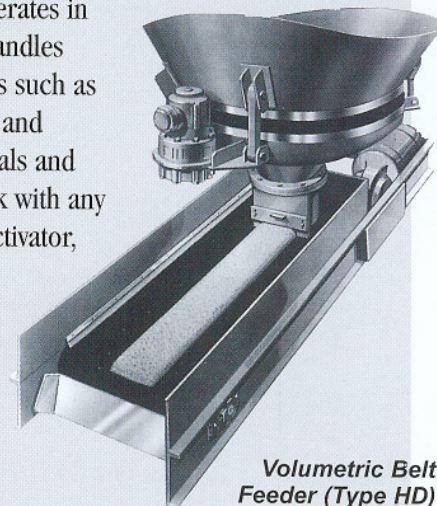
## Volumetric Belt Feeders

### TYPE BF-75

This integrated unit consists of a live bottom bin, integral vibrating nozzle with adjustable gate, and a constant speed continuous belt. Providing a maximum feed rate of 75 cubic feet per hour, the BF-75 is designed to handle waxy and pressure-sensitive materials such as soaps, chemicals, and many foods, without material degradation.

### TYPE HD

The HD belt feeder operates in continuous service and handles large volumes of materials such as sawdust, ores, sand, lime and cement as well as chemicals and foods. These feeders work with any size of Vibra Screw Bin Activator, Live Bin, or Live Bottom Bin. Five models provide maximum feed rates of 70, 400, 1,200, 2,400 and 4,800 cubic feet per hour.



Volumetric Belt  
Feeder (Type HD)



# Weigh Feeders and Batchers

**V**ibra Screw weighing equipment is designed and engineered to provide the most accurate dry material feeding and batching available in the industry today. Advanced microprocessor controls and a wide range of feeder types allow you to handle most materials at any rate you select, for maximum accuracy and flexibility.

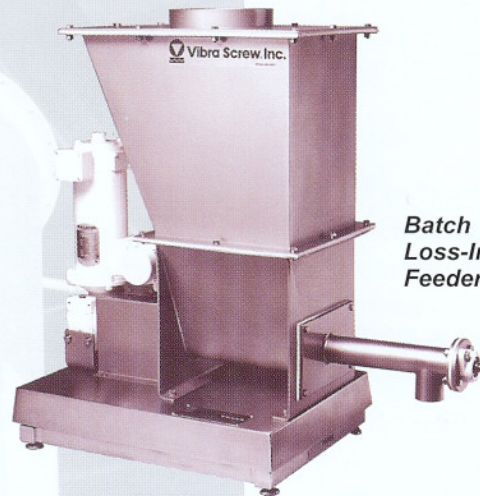
## **Continuous Loss-In-Weight Feeder**

The Vibra Screw Continuous Loss-In-Weight Feeder provides unparalleled versatility in handling a broad range of feeding requirements. Feed rate from 20 pounds to 24,000 pounds per hour can be accomplished with accuracies of  $\pm 1/4$ -1% on a minute-to-minute basis at 2 sigma. Control of the feeder is through a microprocessor-based controller equipped with

one million counts of resolution and exclusive disturbance elimination technology. Feeding devices can include pan or tube feeders, screw feeders and belt feeders.

## **Batch Loss-In Weight Feeder**

Similar in design to the continuous weigh feeders, Vibra Screw's line of batch feeders are capable of batches from ounces to tons, feeding materials from liquids and fine powders to fibrous or flaky materials. Control of batch size and feed time is provided through a unique control package that eliminates the effects of



**Batch Loss-In-Weight Feeder**

plant noise and the need for traditional vibration dampening devices. Batch accuracy of 1/4 to 1/2 % or better can be achieved.

## **Gain-In Weight Batching**

This is a cost effective method of weighing since it requires only one or two scale systems for a number of ingredients. Batch sizes can range from grams to several hundred pounds. Sophisticated control packages can weigh up to 64 ingredients with up to 255 stored recipes or formulas.

## **Control Packages**

Vibra Screw equips its continuous and batch weigh feeders with state-of-the-art controllers. All controllers incorporate user-friendly, menu-driven software. Membrane keypads and easy-to-read displays support a revolutionary concept of deciphering actual weight from plant vibration and electrical noise.

Complete control packages are available not just to run Vibra Screw equipment but other equipment included in the system. Motor control panels and PLC controllers are available for turnkey operation.



**Continuous Loss-In-Weight Feeder**



**Controls**



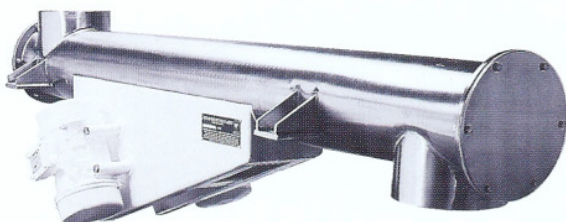
# Vibrating Feeders, Conveyors, Screeners and Blenders

Wherever you need to feed, convey, screen or blend materials, the Vibra Screw product line is at your service. The principle of controlled vibration is applied to our screeners, conveyors and blenders. Simplicity, reliability and economy are our bywords, and your assurance of unparalleled performance.

## **Pan And Tube Feeder/Conveyors**

Challenge these feeders with nearly any material, regardless of size, density, moisture content or temperature. They can be used as constant speed or variable speed conveyors using either electromechanical or electromagnetic drives. The key to the line's success is its low cost and simplicity of design. No moving parts ever touch your material. There are no augers, bear-

*Pan Feeder*

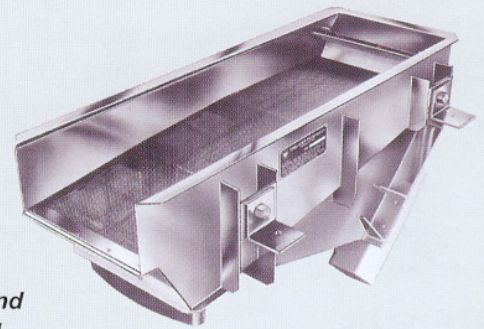


*Tube Feeder*

ings, seals or other items which can degrade material or require replacement or maintenance. Select the size up to 100 feet long and rates up to 1,800 tons per hour.

## **Vibrating Screens**

Vibra Screw provides a wide variety of highly efficient vibrating screens for applications that require coarse scalping, multideck separation, or dewatering.



*Screening, Scalping and Dewatering*

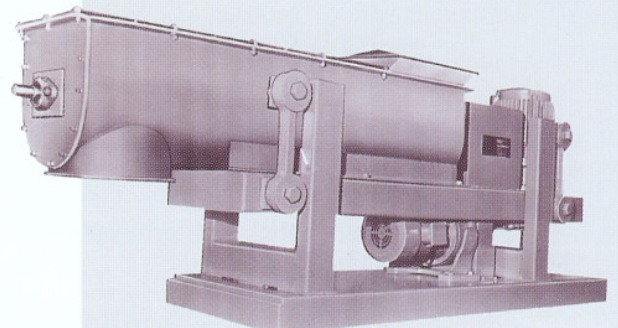
Our screening units can be fitted with standard market grade or tensile bolting cloth, stainless steel mesh, nylon, or synthetic monofilament cloth, or bar screens. Your requests for special meshes and configurations can also be accommodated.

Choose from Vibra Screw's line of standard designs or let us 'tailor-make' special units to suit your requirements. All screens are designed and constructed for long working life, minimal maintenance, easy replacement of screen mesh and compatible contact surfaces.

## **The Vibra-Blender™**

This unique device employs the principle of controlled vibration to 'fluidize' dry materials for rapid dispersion and continuous, high-speed blending of solids. With extremely low power requirements and minimal particle degradation, the Vibra-Blender approaches the efficiency of a batch blender. Choose from three modes with rates of up to 1,200 cubic feet per hour.

*The Vibra-Blender™*





# 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 by such diverse industries as:

## **Foods**

Flour, Soy Meal, Sugar, Vitamin Supplements

## **Mining**

Aggregate, Kiln Feed, Crushed Ores, Coal, Lime, Diatomaceous Earth

## **Chemicals**

Pigments, Additives, Starch, Carbon Black

## **Steel**

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

## **Forest Products**

Chips, Sawdust, Waste By-Products

## **Plastics**

Regrind Flake, Virgin, Colorants, Talc

## **Environmental Control**

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

## **Ordnance**

Ammonium Nitrate, Oxidizing Salt, Solid Base Propellants,  
Ammonium Perchlorate, HMX

## **Agriculture**

Cattle Feed, Nutritional Supplement, Mill Feed, Spent Grain

## **Pharmaceuticals**

Calcium Carbonate, Aspirin, Sodium Bicarbonate, Ascorbic Acid

# The Vibra Screw Product Line

For additional information,  
ask for literature on the following:

AccuFeed  
Bin Activator  
Bulk Bag Unloader  
DE Feeder  
Flexifeeder  
Heavy Duty Screw Feeder  
Loss-In-Weight Feeder  
Live Bin  
Live Bin Screw Feeder  
Live Bottom Bin  
Pan & Tube Feeders  
Portable Bin Unloader  
SCR-20 Screw Feeder  
Storage Pile Activator  
VersiFeeder  
Vibra-Blender  
Vibrating Screens  
Volumetric Belt Feeder

## **The Vibra Screw Guarantee**

No time limits. No conditions. 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.*



**Vibra Screw Inc.**

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