Metalfab, Inc.

Dry Solids Processing Equipment
Integrated Systems and Subsystems
Specialty Fabrication and Related Capabilities

For Use with Powders • Pellets • Flakes • Chips • Granular Materials
Metalfab...Bin Activators

Bin Activators

**Standard**

*Features*: Exclusive dual baffle design to prevent compaction of material
*Diameters*: 2’ - 16’
*Construction Materials*: Carbon steel, 304 or 316 stainless, special coatings

**Sanitary**

*Features*: Polished contacts, round cross members, and closed baffles for sanitary use
*Diameters*: 2’ - 16’
*Construction Materials*: Polished 304 or 316 stainless, white neoprene food grade continuous sleeve

**Pre-Steamer**

*Features*: Special steam injection to pre-digest Materials
*Diameters*: 8’ - 16’
*Processing Temperature*: 250°F
*Construction Materials*: 304 or 316 stainless only

**LVT (Low Vibration Transmission)**

*Features*: Uses threaded rods and low durometer isolators for reduced vibration. Ideal for use with sensitive scaling systems and equipment or for loss-in-weight gravimetric feeding
*Diameters*: 3’, 4’, and 5’
*Construction Materials*: Carbon steel, 304 or 316 stainless, specialty coatings

**Posibins™**

*Features*: Full size bin activator to ensure product flow with even the toughest materials
*Diameters*: 16 models from 3’ to 8’
*Capacity*: 25 to 750 cu. ft. and up
*Construction Materials*: Carbon steel, 304 or 316 stainless, bins with full size bin activators, special coatings
**Self-Standing Static Bins**

**Features:** Economical storage of totally free-flowing bulk materials and non-vibrated discharge of materials

**Capacity:** 3, 5, 8, 10 and 15 cu. ft. (larger sizes made to order)

**Construction Materials:** Carbon steel, 304 or 316 stainless; special coatings

---

**Portable Bin (IBC) Unloaders**

**Features:** Easy transport and discharge of (IBC) dry bulk materials when and where needed. Rugged steel framework is mounted on vibration isolators and has four corner guide locators to assist forklift operators.

**Dimensions:** 44” W x 50” D x 15.5” H

**Capacity:** 50, 75, and 100 cu. ft.

**Construction Materials:** Carbon steel, 304 or 316 stainless

Optional scale system, screw feeder, and flexible screw conveyor

---

**PLBB Posibin**

**Features:** Uses low vibration transmission (LVT) bin activator. Ideal for use with sensitive scaling systems and equipment or for loss in weight gravimetric feeding.

**Diameters:** 5 models from 20” to 30”

**Capacity:** 3 to 15 cu. ft.

**Bulk Density:** to 50 lbs./cu. ft.

**Construction Materials:** Carbon steel, 304 or 316 stainless; special coatings

---

**MLB Live Bins**

**Features:** Entire bin vibration for continuous flow. Easy cleanability for sanitary applications. Also used for pressure applications

**Diameters:** 7 models from 20” to 60”

**Capacity:** 3 to 100 cu. ft.

**Construction Materials:** Carbon steel, 304 or 316 stainless. Pressure designs to 14.9 PSIG positive. Sanitary construction available
Gravimetric Feeders

“Better-Weigh®” Feeders
Features: Highly accurate gravimetric feeding utilizing a platform scale and controls, standard 2 or 5 cu. ft. hopper. Sanitary construction available.
Accuracy: ± 0.25% to 0.50% (one minute samples) on batch or continuous
Feed Rates: 0.03 to 550 cu. ft./hr. and higher

CB1 Continuous Mixer/Blender
Blends two or more materials into one homogenous mixture
Features: A/C constant speed drive standard
Sizes: 6”, 8”, 10”, 12”, and 16”
Feed Rates: From 150 to 2,500 cu. ft./hr.
Construction Materials: Carbon steel, carbon steel with special coatings, 304 or 316 stainless; other specified materials

MetaTech™ Feeder
Features: Rugged volumetric feeder with only 2 MOVING PARTS
Accuracy: ± 1 to 1-1/2% (one minute samples) or 60 revolutions (whichever is greater)
Screw Sizes: 1/2” to 6” diameter
Feed Rates: 0.03 to 550 cu. ft./hr.
Construction Materials: Carbon steel, carbon steel epoxy coated, 304 or 316 stainless, other specified materials
**MTL Screw Feeder**

**Features:** Robust, high volume feeder

**Accuracy:** ± 1 to 1-1/2% (one minute samples) or 60 revolutions (whichever is greater)

**Screw Sizes:** 6” to 20” diameter

**Inlet to Outlet:** 3’ to 12’

**Feed Rates:** 550 to 18,000 cu. ft./hr.

**Construction Materials:** Carbon steel, carbon steel epoxy coated, 304 and 316 stainless steel. Other materials available

---

**MAP Screw Feeder**

**Features:** For “sticky” cohesive materials such as oxides, titanium oxide, iron oxide, etc.

**Accuracy:** ± 1 to 1-1/2% (one minute samples) or 60 revolutions (whichever is greater)

**Screw Sizes:** 1” to 6”

**Feed Rates:** 0.15 to 550 cu.ft./hr.

**Construction Materials:** Carbon steel, carbon steel epoxy coated, 304 or 316 stainless. Other materials available

---

**MTS Sanitary Feeder**

**Features:** Sanitary applications (food, pet food, etc). Quick disassembly without the use of tools

**Accuracy:** ± 1 to 1-1/2% (one minute samples) or 60 revolutions (whichever is greater)

**Screw Sizes:** 1/2” to 6” diameter

**Feed Rates:** 0.03 to 550 cu. ft./hr.

**Construction Materials:** Contact surfaces, 304 or 316 stainless (optional) polished finish. Food grade white neoprene gasketing. External carbon steel parts painted white epoxy

---

**MTM Mini Screw Feeder**

**Features:** Requires only 12” x 16” foot print

**Accuracy:** ± 1 to 1-1/2% (one minute samples) or 60 revolutions (whichever is greater)

**Screw Sizes:** 1/2”, 3/4”, 1”, 1-1/2”

**Feed Rates:** 0.03 to 8 cu. ft./hr.

**Construction Materials:** Carbon steel, carbon steel epoxy coated, 304 or 316 stainless steel. Other materials and sanitary construction available

---

**MTP Screw Feeder**

**Features:** For more difficult to feed materials - film scrap, wood chips, filter cake, etc

**Accuracy:** ± 1 to 1-1/2% (one minute samples) or 60 revolutions (whichever is greater)

**Screw Sizes:** 3”, 4”, 6” diameter; agitator/conditioning screws 8” and 10”

**Feed Rates:** 6 to 550 cu. ft./hr. max.

**Construction Materials:** Carbon steel, carbon steel with special coatings, 304 or 316 stainless

---

**APB Belt Feeder**

**Features:** For products not conducive to screw feeding like friable materials, metal slag, steel shot, etc.

**Accuracy:** ± 1 to 2% (one minute samples)

**Belt Widths:** 12”, 24”, 36”, 48”

**Belt Lengths:** 36”, 72”, 108”, 144” respectively

**Feed Rates:** to 5,800 cu. ft./hr

**Construction Materials:** Carbon steel, 304 or 316 stainless steel, belts – standard neoprene or Hycar® Nordel®, Viton®, and special coatings
**Bulk Bag Unloader**

**Features:** Complete and positive discharge of bag contents. Dust-free operation. Requires only one person. Unique design eliminates spillage or waste

**Handles:** Lined and unlined bulk bags up to 4,000 lbs.

**Materials:** Powders and difficult to handle dry bulk materials

**Construction Materials:** Carbon steel or stainless; available with or without frame; numerous suitable options

**Conveyors**

**Convey-All™/FSC**

**Flexible Screw Conveyor**

Handles powders, pellets, flakes, and other dry solids

**Features:** Top and bottom cleanout. Dust-free connections. Conveying up to 60° or horizontally

**Sizes:** Up to 20 ft. in length

**Screw Sizes/Conveying Notes:** 3” dia. helix screw for up to 150 cu. ft./hr. and 4” dia. helix screw for up to 450 cu. ft./hr.

**Construction Materials:** 304 stainless steel helix screw and contact parts with 2B mill type finish. White HDPE tube at 0°, 30°, 45°, and 60° inclination

**Convey-All™/VTC**

**Vibratory Tube Conveyors**

**Features:** Handles high rates of difficult flowing or friable dry solids

Only 2 MOVING PARTS. Clamp on vibrating tube. Choice of top or bottom mounted conveyor and/or drive. Easily accessible cleanout ports

**Sizes:** Nine Models in 4 – 10 ft. lengths.

**Conveying Rates:** 6”, 8”, and 10” dia. tubes convey up to 400 cu. ft./hr.

**Construction Materials:** 304 stainless steel with 2B mill type finish

Optional Hoists
(top level model shown)
MTL Standard Screw Conveyor

**Features:** Horizontal or inclined high volume screw conveyor
**Screw Sizes:** 6” to 20” dia. and up
**Conveying Rates:** 185 cu. ft. to 6,000 cu. ft. and higher
**Construction Materials:** Carbon steel, 304 or 316 stainless steel with 2B mill type finish

U-Trough Conveyor

**Features:** Extended length conveyor for long distance horizontal conveying
**Conveying Rates:** 185 cu. ft. to 6,000 cu. ft./hr.
**Sizes:** 6 – 20 ft. lengths and up
**Construction Materials:** Carbon steel, 304 or 316 stainless steel with 2B mill-type finish

Automatic Bag Slitter

**Features:** Cuts 30-60 lb. bags of grain, agricultural seed, or seed-like product
**Process Rate:** Up to 60 plus bags per minute
**Construction Materials:** Carbon steel, 304 or 316 stainless, specialty coatings
**Option:** “Bag kicker” for bag disposal

Spin Loader

**Features:** Eliminates pyramiding/angle of repose of flakes and granular materials when loading rail cars, bins, hoppers, and piles. Loads up to 15% more product in 360° arc pattern
**Sizes:** Two models (SL100) 8-5/8” dia. inlet with a 2 HP motor and (SL200) 10-3/4” dia. inlet with a 5 HP motor
**Capacity:** (SL100) to 1,000 cu. ft./hr. and (SL200) to 2,200 cu. ft./hr.
**Bulk Density:** to 90 lbs./cu. ft.
**Construction Materials:** Aluminum, 304 stainless, specialty wear liners

Wetted Cone

**Features:** Used to wet/disperse/dissolve dry materials and water into a slurry. Adjustable mix ratio increases mixer efficiency.
**Sizes:** 14” and 18” dia.
**Capacity:** Based on individual material properties
**Construction Materials:** 304 or 316 stainless

Bag Dump Hopper

**Features:** For manual, virtually dust-free bag breaking and dumping. Optional bin vent filter for dust-free operation
**Dimensions:** 33-1/2” W x 30” D x 90” H
**Capacity:** Handles paper bags up to 30” W x 27” D
**Construction Materials:** Carbon steel, 304 or 316 stainless, special coatings
Integrated Systems and Subsystems

For a Wide Range of Dry Solids Processing Applications

- Material bulk storage in a silo or bulk bag
- Continuous gravimetric or volumetric loss-in-weight feeding, minor or multiple ingredient feeding, batch feeding, or gain-in-weight feeding based on recipe
- Continuous blending or batching by weight or volume
- Feeding and conveying or bulk bag emptying
- Complete PLC control and integration of your process
- And others

Metalfab integrated systems and subsystems, inclusive of all major and ancillary equipment, controls and support structure can be configured to meet your exact application and plant footprint requirements.

Specialty Fabrication and Related Services

To Meet the Critical Requirements of Today’s Design Engineers

- Design and engineering
- “Solid Works” 3D Modeling and AutoCAD
- Custom fabrication to customer specifications including: metal thicknesses (16 gauge to 1/2” plate), rolling, cutting, stamping, punching, forming, welding, painting, inspection, and assembly
- Mechanical, electrical, and controls drawings in electronic DWG, DXF, and IGES, and “Solid Works” 3D Modeling formats
- Electrical and controls engineering (P&ID, control philosophies, logic diagrams, ladder diagrams, electrical drawings, programming and systems integration)
- Unique ability to integrate electro-mechanical components and programmable controls into a fully assembled and tested system (such as skid systems)
- Ability to work with a diversity of materials including: carbon steel, 304 and 316 stainless, high temperature 309 and 310 stainless, and abrasion-resistant AR400
- Engineer, supply, integrate, and program controls for multiple operating systems
- In-house Certified Welding Inspector and weld procedures certified to ASME-31.3 and AWS D1.1 and D1.6
- Project scheduling, monitoring, and reporting

Metalfab’s specialty fabrication facility includes a variety of contemporary metal forming and metal working equipment along with the latest state-of-the-art cutting equipment. Our engineering staff, which has distinguished itself for its many contributions to product improvement over the years, is available for consultation and assistance at the product planning or production stages.

For more information or literature on any of these products or services call 800-764-2999, in NJ 973-764-2000, Fax: 973-764-0272, or e-mail: sales@metalfabinc.com.