

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

Posibins™



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

Standard PB Posibin

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

MetalFab...Feeders

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



“Better-Weigh®” Feeder Controls

Features: Allen Bradley PLC for continuous (loss-in-weight) feed rate control or automatic batching (loss-in-weight or gain-in-weight), automatic feed rate optimization for bulk and dribble point determination, numerous other operating features

Enclosure: NEMA 4X

Display Type: 6” color TFT 320 x 240 QVGA touch screen



CB1 Continuous Mixer/Blender

Blends two or more materials into one homogenous mixture

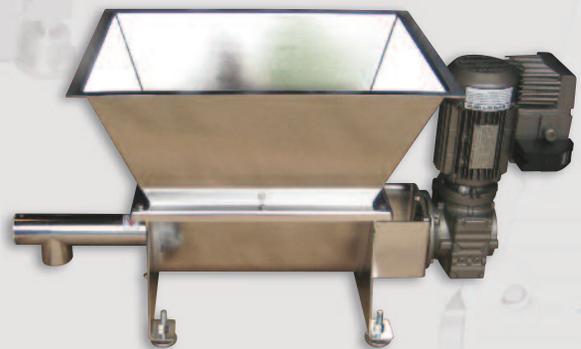
Features: A/C constant speed drive standard

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

Volumetric Feeders



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

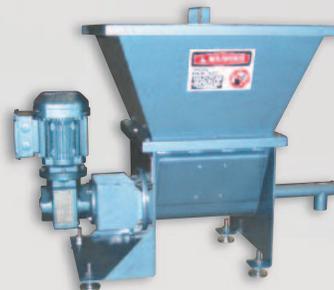
Features: Sanitary applications (food, pet food, etc). Quick disassembly without the use of tools

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

Metalfab...Unloaders and Convey

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



Optional Hoists
(top level model shown)

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

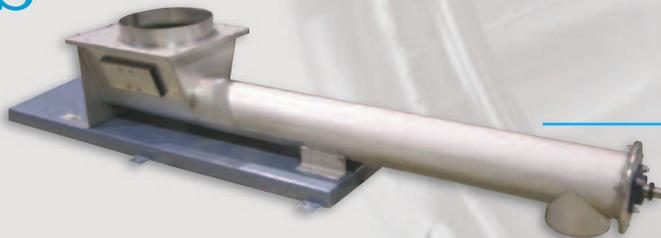
Features: Handles high rates of difficult flowing or friable dry solids

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



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



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

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



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



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

Wetting 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



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.



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.

 **Metalfab, Inc.**

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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.



Dry Solids Processing Equipment Made Better by Design

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