

# Acrison®

## BULK BAG UNLOADER Model 810

*For Dry Solid Materials*



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*Advanced design technologies for superior  
performance, quality and reliability.*

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# **BULK BAG UNLOADER** **Model 810**

*For Dry Solid Materials*

## **Introduction**

Acrison's Model 810 Bulk Bag Unloader provides a clean, efficient and effective means for discharging a wide assortment of dry solid materials, especially those that do not flow freely, contained within various size and type Bulk Bags. Designed to empty the entire contents of a Bulk Bag, typically into an Acrison metering mechanism, the ruggedly constructed Model 810 Bulk Bag Unloader will handle bags weighing up to 2 tons; the bags can be disposable, reusable or lined.



Basic Model 810 Bulk Bag Unloader designed for forklift loading.

# Model 810 Bulk Bag Unloader

## Operation

Positive product discharge is reliably achieved through the use of *regulated vibration* uniformly applied to the body of the Unloader and, in turn, directly into the Bulk Bag (and its contents) by an adjustable, highly dependable, heavy-duty motorized vibrator.

The Model 810 Bulk Bag Unloader is resiliently mounted onto a robust support structure. A Bag Lifting Rack that attaches onto the Bulk Bag's lifting straps or loops lifts the Bulk Bag into the Unloader. From floor level, Bulk Bags are lifted and placed into the Unloader by a forklift, an overhead crane, or a hoist and trolley system incorporated into the Unloader's support structure.

Once a bag has been placed into the Bulk Bag Unloader, the bag is primarily supported by the Unloader, and to a much lesser extent, by the Bag Lifting Rack. As an option, the Bag Lifting Rack may include Acrison's Automatic

Bag Tensioner that automatically maintains upward tension (lift) on the Bulk Bag, as the bag empties, to facilitate the emptying process. The Bag Lifting Rack may also include a Bag Liner Tensioner.

A Bulk Bag, when placed in the body of the Model 810 Bulk Bag Unloader, sits on an elastomeric membrane seal that ensures dust-free operation during the unloading process. To untie a bag's Discharge Spout, an access door is provided in the body of the Unloader. In addition, as an option, an exhaust port may be provided in the body of the Unloader to remove any dust that may occur when untying the bag.

Typically, product discharges out of the Bulk Bag Unloader into an Acrison Volumetric or Gravimetric Feeder, into a storage hopper, or into various types of materials-handling mechanisms.



A close-up of a Model 810 Bulk Bag Unloader. The Unloader discharges into a slide gate, which is mounted above a volumetric feeder (not visible). The bag is nearly empty, lifted upward by a Bag Lifting Rack equipped with Acrison's optional Automatic Bag Tensioner (also not visible).

# Model 810 Bulk Bag Unloader

## Standard Features

- A simple, yet very effective bulk bag-unloading concept for positive and complete bag emptying.
- Designed for quick, easy and safe operator loading.
- An access door is supplied in the body of the Unloader for untying the discharge spout of a bulk bag; the hinged, dust-tight door is held secure with quick-release clamps.
- Supplied with a Bag Lifting Rack for lifting the bag into the Unloader either by a forklift or a hoist.
- Adjustable bag rack guide rails (adjust vertically to accept various bulk bag lengths).
- Tapered side guides to help align and locate the Bulk Bag during the loading procedure, will also help support the Bag in the proper position during the unloading process.
- The Bulk Bag sits on a heavy-duty elastomeric membrane seal, located within the body of the Unloader, to prohibit dust from escaping during the unloading process.
- Excluding the vibrator, the Bulk Bag Unloader does not have any moving parts.
- The motor of the heavy-duty, permanently lubricated, adjustable vibrator is TENV and typically requires 230/3/60 power. The vibrator is virtually maintenance-free.
- The body of the Bulk Bag Unloader is available in mild steel, 304 and 316 stainless steel.
- Designed for totally dust-tight operation, the ruggedly constructed Model 810 Bulk Bag Unloader is silent when operating.

## Optional Equipment/Features

- Integral hoist and trolley (manual or motorized)
- Bag Lifting Rack equipped with Acrison's Automatic Bag Tensioner
- Bag Liner Tensioner
- Discharge connections for direct attachment to take-away systems
- Provisions for dust removal from within the body of the Unloader
- Dust Collector
- Bag Slitter (for disposable bags)
- Sanitary construction
- Vibrator, hoist and trolley suitable for hazardous areas
- All stainless steel construction



An operator is placing a bag into a Model 810 Bulk Bag Unloader with a forklift; the Bag Lifting Rack is equipped with Acrison's optional Automatic Bag Tensioner.

## Fork Truck Loading

When it's desired to lift a Bulk Bag into the Bulk Bag Unloader with a forklift, a Bag Lifting Rack, specifically designed for this purpose, is utilized. The bag is lifted into position onto adjustable mounting rails located on the main structure of the Unloader. The mounting rails have guides to aid in positioning the Bag Lifting Rack over the body of the Unloader.

# Model 810 Bulk Bag Unloader

## Bag Lifting Racks

The Model 810 Bulk Bag Unloader is available with several different Bag Lifting Rack configurations, the selection of which depends on how the Bulk Bag will be lifted and positioned into the Unloader. The Bag Lifting Rack includes a Lifting Lug for attachment to a hoist, or channels for the blades of a forklift. Additionally, the Bag Lifting Rack may be equipped with Acrison's Automatic Bag Tensioner to maintain upward tension on a Bulk Bag as it empties, and it may also include a Bag Liner Tensioner.

Acrison's various Bag Lifting Racks are heavy-duty in construction, designed with robust bag attachment studs or hooks (with spring actuated safety latches) for safe and positive attachment to the four bag lifting straps.



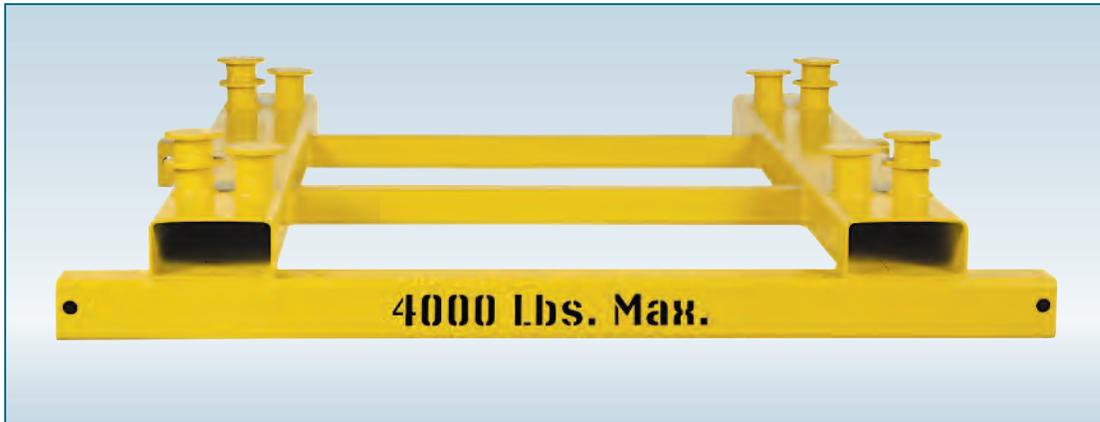
Basic Bag Lifting Rack for placing a Bulk Bag into Acrison's standard Model 810 Unloader with a forklift.



Optional Bag Lifting Rack for placing a Bulk Bag into Acrison's standard Model 810 Unloader with a forklift; includes the Automatic Bag Tensioner (optional).

# Standard (Basic) Bag Lifting Racks

## Basic Bag Lifting Rack for lifting a Bulk Bag into the Unloader with a forkltruck



A close-up view of Acrison's standard Bag Lifting Rack (less options) for use with a forkltruck.



▲ The Bulk Bag has been safely loaded into the Unloader.



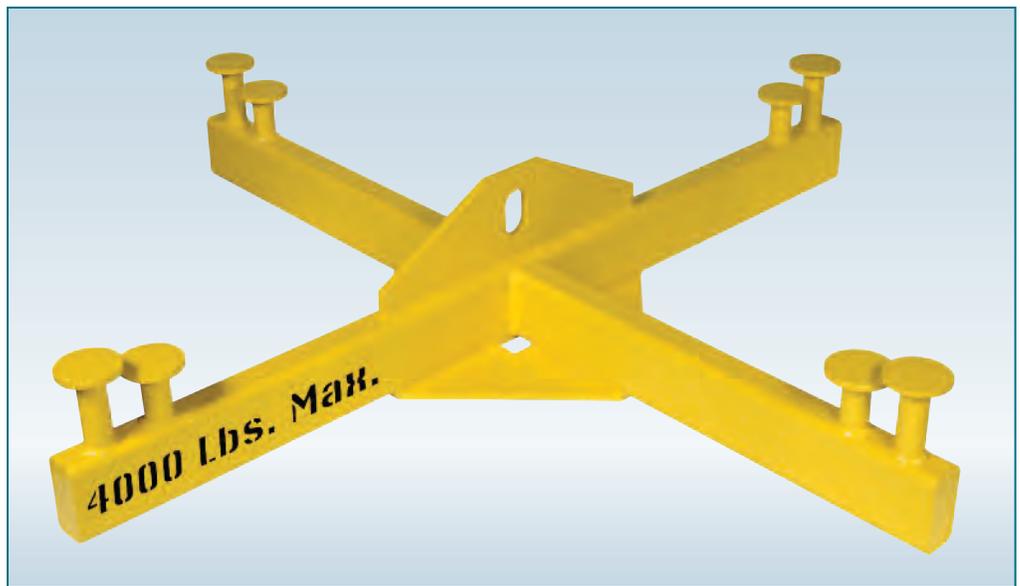
▲ The Bulk Bag is being placed into the body of the Unloader.



## Basic Bag Lifting Rack for lifting a Bulk Bag into the Unloader with a hoist



A Bulk Bag is being prepared for lifting into a Model 810 Bulk Bag Unloader. The Bag Lifting Rack is Acrison's standard (less options) for lifting by a hoist.



A close-up view of the above Bag Lifting Rack.

▲ The Bulk Bag has been safely placed in the body of the Unloader. The Bag Lifting Rack remains attached to the hoist during the unloading process.

# Optional Bag Lifting Racks

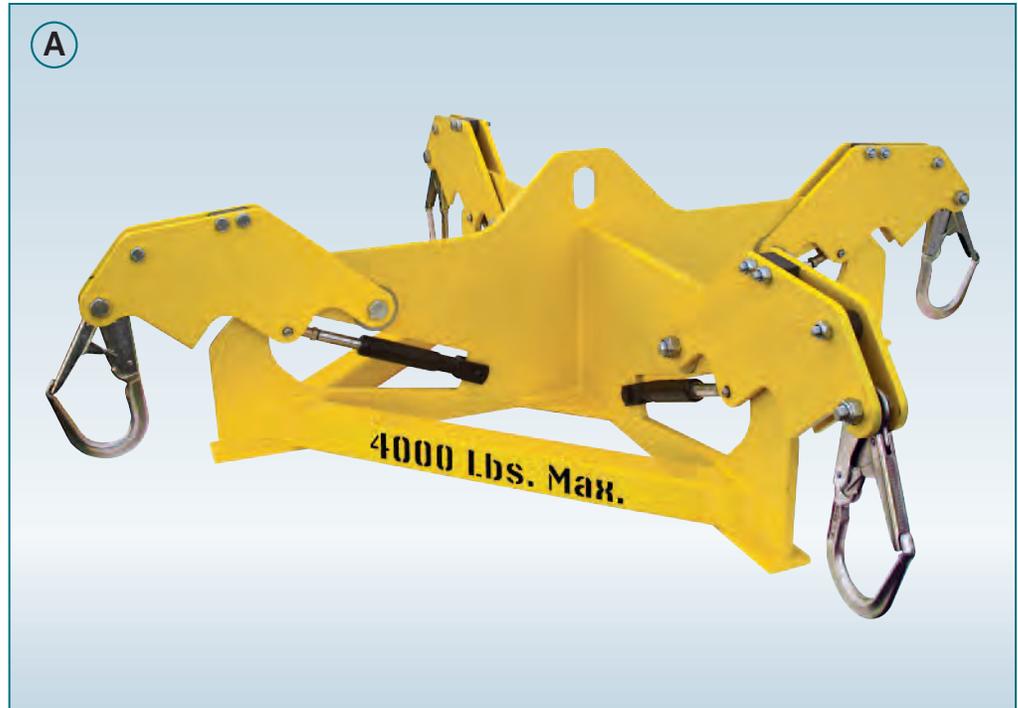


A Bulk Bag is loaded into a Model 810 Bulk Bag Unloader by a hoist utilizing a Bag Lifting Rack equipped with Acrison's optional Automatic Bag Tensioner.

## Bag Lifting Rack with Acrison's optional Automatic Bag Tensioner and Bag Liner Tensioner

To avoid the possibility of a Bulk Bag folding inward during the unloading process, which can adversely affect downward product flow and bag emptying, Acrison utilizes a novel Automatic Bag Tensioning Mechanism that automatically maintains upward tension (or lift) on a Bulk Bag as the bag empties. The Automatic Bag Tensioner also eliminates the need for operator intervention during the Bulk Bag discharging process to verify that the bag hasn't developed any pleats or folds that could trap material and interfere with the discharge of product (reference photograph A, page 9).

The Automatic Bag Tensioning Mechanism incorporates four independently actuated heavy-duty hooks (with safety latches) that individually attach to the four lifting straps or loops of a Bulk Bag to lift the bag vertically as its contents are being discharged so that the bag will empty completely. The Automatic Bag Tensioner may be utilized with any of Acrison's Bag Lifting Racks, and may also be equipped with a Bag Liner Tensioner to maintain upward tension on a bag liner to prohibit the possibility of the liner sliding downward with the material, which could also interfere with product discharge (reference photograph B, page 9).



Bag Lifting Rack with Acrison's optional Automatic Bag Tensioner (for lifting by a hoist).



Bag Lifting Rack with Acrison's optional Automatic Bag Tensioner and Bag Liner Tensioner (for lifting by a hoist).



# Model 810 Bulk Bag Unloader

## Definition of Call-outs

(Reference page 11)

**(1) Main Support Framework** - The standard Main Support Framework of the Model 810 Bulk Bag Unloader is constructed of 4 inch square tubing (3/16" wall thickness) for exceptional rigidity, durability and longevity; the tubing does not have any mounting holes drilled through it as a means for adjusting the height of Bulk Bags. Also, the design of the support framework precludes water and other contaminants from entering the tubing, which over time, could compromise the structural integrity of the framework. The standard framework is carbon steel, epoxy primed and painted with a durable industrial finish. As an option, the framework can also be provided in stainless steel.

**(2) Bulk Bag Unloader** - The Body of the Bulk Bag Unloader is mounted on four resilient (rubber) isolators that allow the Unloader to vibrate uniformly and to effectively impart this vibration into the bag for positive emptying. The isolators also minimize the amount of vibration transmitted into the support framework (structure).

**(3) Vibrator** - An adjustable, heavy-duty, permanently lubricated electric Vibrator powers Acrison's Model 810 Bulk Bag Unloader. The Vibrator's adjustable settings produce various levels of vibration that can be tailored to ensure positive discharge of a wide variety of dry solid materials out of any Bulk Bag.

**(4) Access Door** - An Access Door is provided in the trapezoidal section of the body of the Unloader, typically in the back, to untie the bag (see photographs below). The dust-tight Access Door is hinged and held secure with heavy-duty quick release clamps.

**(5) Bulk Bag**

**(6) Integral Electric Hoist and Trolley** - When a Model 810 Bulk Bag Unloader is equipped with an optional electric Hoist with Trolley (a motorized Trolley is an option), floor-level loading and positioning the Bulk Bag into the body of the Unloader is greatly facilitated. Typically, the Electric Hoist is rated for a maximum capacity of 4000 pounds.

**(7) Operator Hoist and Trolley Controls**

**(8) Hoist Cable Wireway** - When the Model 810 Bulk Bag Unloader is furnished with an integral electric Hoist and Trolley for lifting Bulk Bags into the Unloader, its electrical cables are housed in a Wireway that organizes, protects and defines the path of the cabling as the Hoist and Trolley travel back and forth on its mounting I-beam.

**(9) Bag Lifting Rack (equipped with Acrison's Automatic Bag Tensioner)** - (see pages 8 and 9)

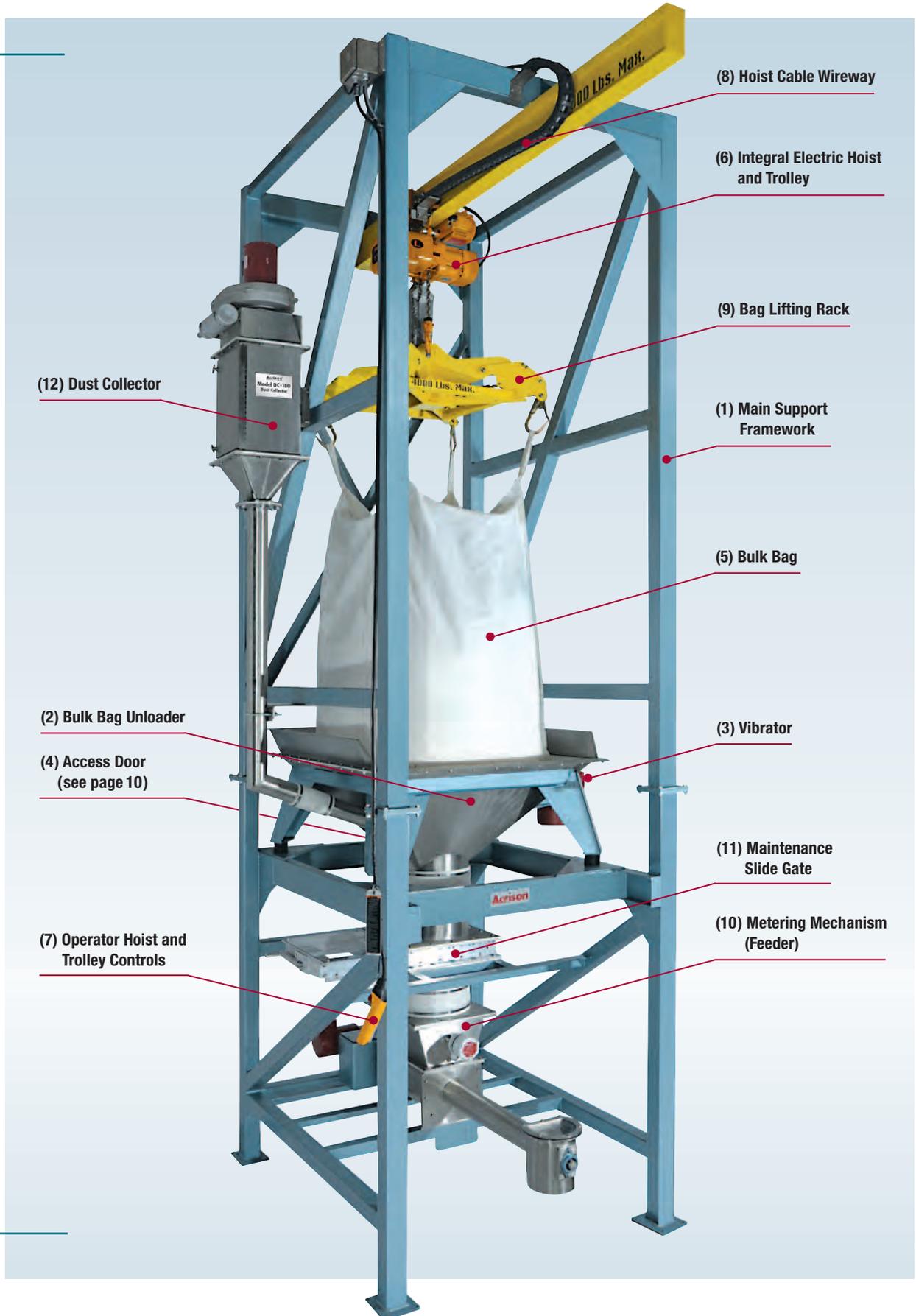
**(10) Metering Mechanism (Feeder)** - The selection of the Acrison Metering Mechanism into which the Unloader discharges is based on the handling characteristics of the product or products that will be handled through the Unloading/metering system.

**(11) Maintenance Slide Gate** - As an option, a slide gate can be provided between the feeder and the discharge spout of the Bulk Bag Unloader, typically for maintenance purposes related to the feeder. The Slide Gate can be either manually or automatically operated.

**(12) Dust Collector** - Acrison's Model DC-100 Dust Collector has been designed specifically for use in conjunction with Acrison Bulk Bag Unloaders to remove any dust that may be generated when untying the spout of a bag. The Model DC-100 includes an integral fan that draws air through a self-cleaning cartridge filter, typically arranged so that the collected dust continually discharges into the Acrison metering mechanism into which the Bulk Bag is discharging. Please reference Design Specification 1-200-0835.



# Model 810 Bulk Bag Unloader



## Discover the difference!

We cordially invite you to witness a test in Acrison's state-of-the-art Customer Demonstration Facilities handling your actual product(s) with the specific equipment we recommend for the application. Usually, there is no cost or obligation for this service.

Discover the difference in technology, quality and performance of Acrison equipment.



Empire Boulevard Facility  
Moonachie, NJ USA



Trafford Park Facility  
Manchester, UK

### Acrison products...

- Models 101 and 130 Volumetric Feeder Series
- Models V-101 and V-130 Volumetric Feeders
- Model 1015 Volumetric Feeder Series
- Model 105 Volumetric Feeder Series
- Model W-105 Volumetric Feeder Series
- Model 120 Volumetric Feeder
- Model 140 Volumetric Feeder Series
- Model 170 Volumetric Feeder Series
- Model 905-14 Volumetric Feeder
- Bin Discharger Feeders
- Model 200 Series Weigh Belt Feeders
- Model 203B Series Weigh Auger Feeders
- Model 270 Series of In-Line Weigh Feeders
- Models 402, 404, A405, 406, 407 and 410 Series ("Weight-Loss-Differential") Weigh Feeders
- Model Series 403 ("Weight-Loss-Differential") Weigh Feeders
- Model 403B(D) Batch/Dump Weighing Systems
- Model 404BZ(BU) Bulk Bag Unloader Batch Weigher
- Models 350 and 301 Continuous Blenders and Blending Systems
- Multiple Auger Bin Dischargers and Multiple Auger Bin Discharger Hoppering Systems
- Vibratory Bin Dischargers
- Model 170-BD-30 Bin Discharger
- Model 800 Series Bulk Bag Unloaders
- Model 500 Series Polyelectrolyte Preparation Systems
- Water and Waste Water Treatment Systems
- Volumetric and Gravimetric Feeder Controllers and Control Systems
- Accessory Equipment for Acrison Products
- Systems Engineering



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