

# Volkmann Bag Dump Stations



Systems and Solutions for the  
**Hygienic and Safe Handling of Powders**  
for the Chemical, Food,  
Pharmaceutical and Pigment Industries

# Bag Dump Stations

## Bag Dump Stations, Drum Tip Stations and Minor Additive Hoppers

Volkman manufactures a wide range of bag dump hoppers, bag dump stations and drum tip stations to meet production requirements for opening bags or drums of product – providing solutions across the spectrum of powder handling needs. Volkman stations include practical solutions used in simple “minors addition” or the regular opening and transfer of production batches of product, from 25 or 50 lb. bags, with or without containment. There is a solution for just about every situation that is likely to be encountered in the product environment, from simple to complex to highly contained and custom designed. From fume silica to tungsten metal powder, our extensive experience over 40 years of manufacturing provides the right solution for your application.



Modular feeding station RNT 180

Features include:

- Modular design allowing features to be selected to suit the application
- The ability to add upgrades to suit more demanding applications to a simple station
- Robust simple construction that allows cleaning between batches without the need for tools
- Explosion-proof ATEX certified design as standard
- 316L contact parts as standard
- Integrated dust hoods and filters, or central air hook-up as required
- Reverse jet filter cleaning
- Glove box options for containment
- Hepa filtration options
- High containment options
- Inlet conveyor for bags with an isolation valve
- Empty bag discharge chute or a pneumatic bag compactor
- Discharge aids to suit the application
- Integrated Lumpbreaker options
- Integrated Drum Tipper options for drum emptying
- Custom dimensioned units to suit the application
- Sanitary connection to downstream vacuum transfer
- Roll in – roll out design to allow connection for Bulk Bag Unloader gravity feed.
- Handling materials with bulk densities from as low as 3 lbs./ft<sup>3</sup> and as high as 400 lbs./ft<sup>3</sup>
- Inert options as required
- A wash-in-place option

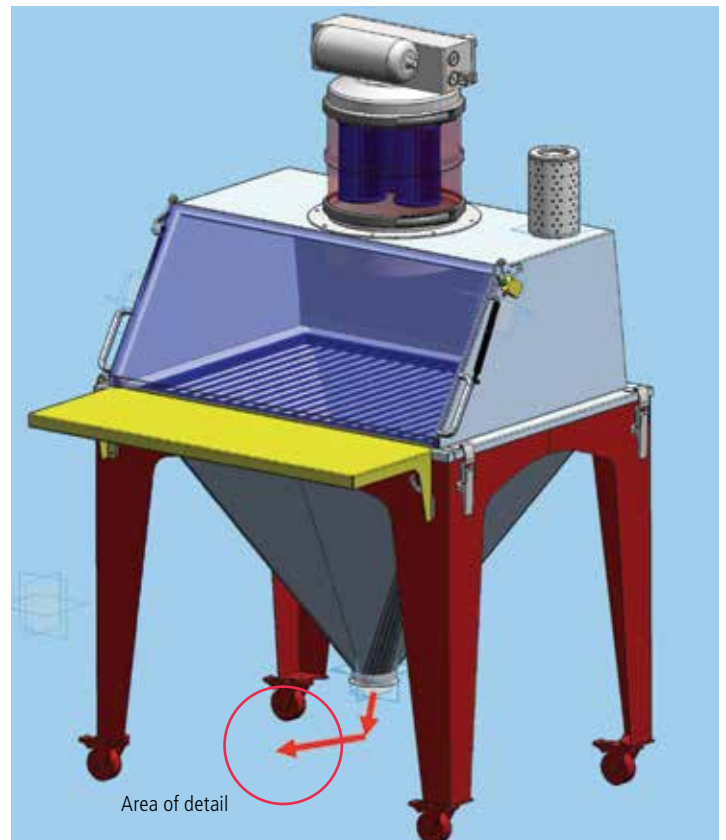
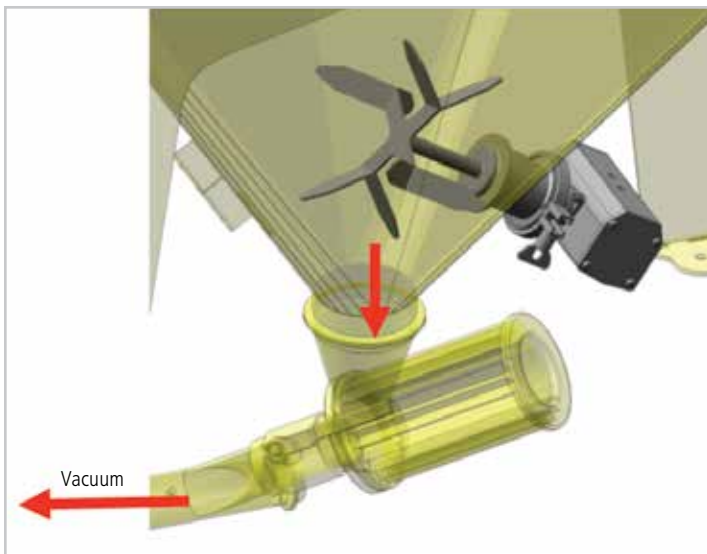
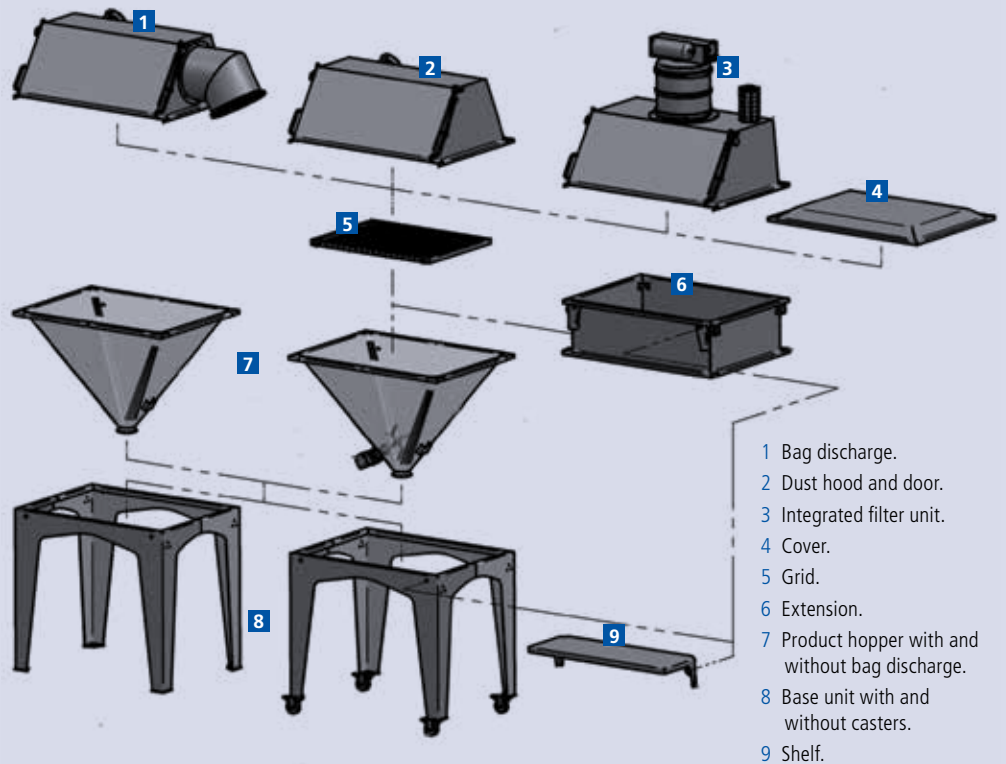
# Rip and Tip Bag Dump Stations

## Flexibility with Modular Design

The Volkmann Rip and Tip Bag Dump Station features a modular design providing you with the flexibility you need to meet your production requirements.

Choose from one of three methods to improve material flow from the bag:

- Fluidization pads
- Mechanical agitation via massaging paddles with pneumatic actuators
- Vibration (interface with a vacuum conveyor for a discharge-only operation)



# Rip and Tip Bag Dump Stations



From base hopper to a full system, Volkmann's Rip and Tip Bag Dump Stations offer:

- 180 liter capacity + extensions
- Steep hopper walls
- Grid and support shelf options
- A lift-up door
- Availability in mobile or static configurations

Customize your Rip and Tip Bag Dump Station with a bag discharger, central air hook-up, and integrated dust collector to capture stray product.



**Rip and Tip Unloading Station with—**

- 1 Hood/lift-up door.
- 2 Central air hook-up.
- 3 Feed elbow, typically used to feed vacuum conveying systems.
- 4 Grid and support shelf.
- 5 Volume extension.

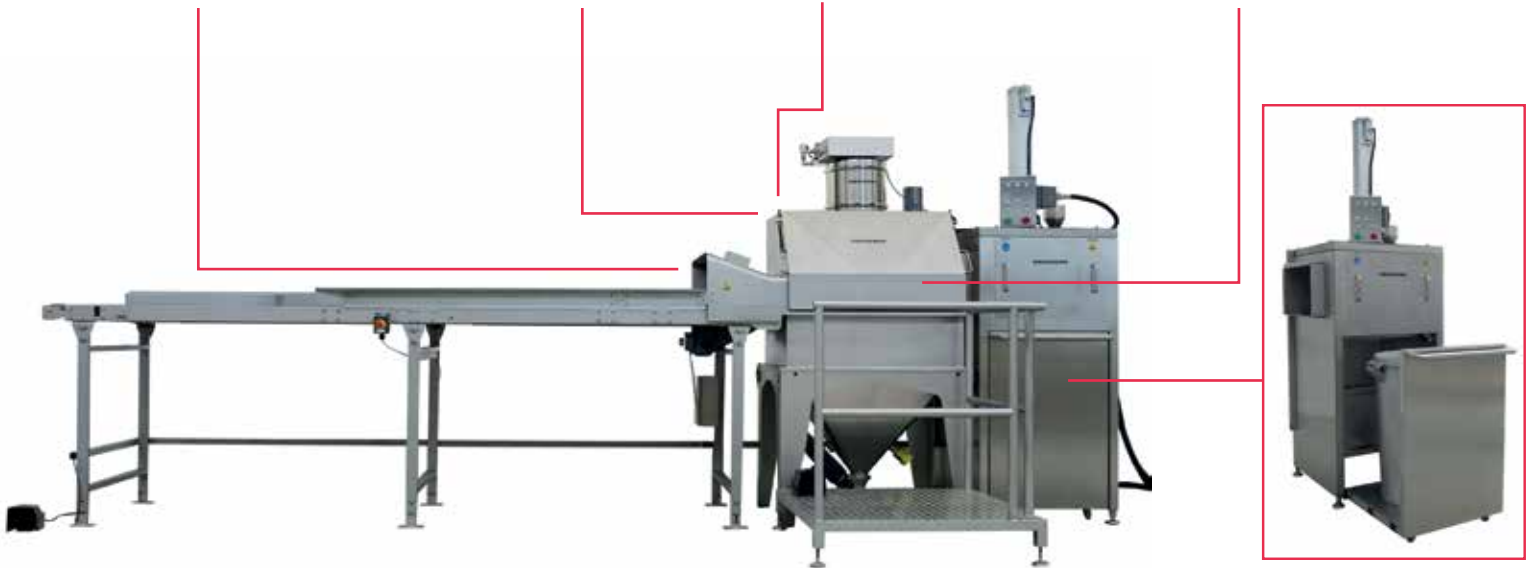


**Rip and Tip Unloading Station with filter and glove box included.**

# Rip and Tip Bag Dump Stations

## Partially-automated sack feeding station featuring contained supply, dust extraction and an empty sack compactor

The full sacks are placed on the belt and by pressing a foot pedal, are transported into the emptying station via the conveyor belt. The operator pulls the bag into the emptying station, cuts it open, empties it and folds up the bag. The emptied bag is then passed into the empty bag compactor. As the empty bag compactor is filled, the safety door is closed and the empty bag compactor is started.



Combined bag feed, opening, dust containment and empty bag compactor installation.

Empty bag compactor.

## Lump Breaker

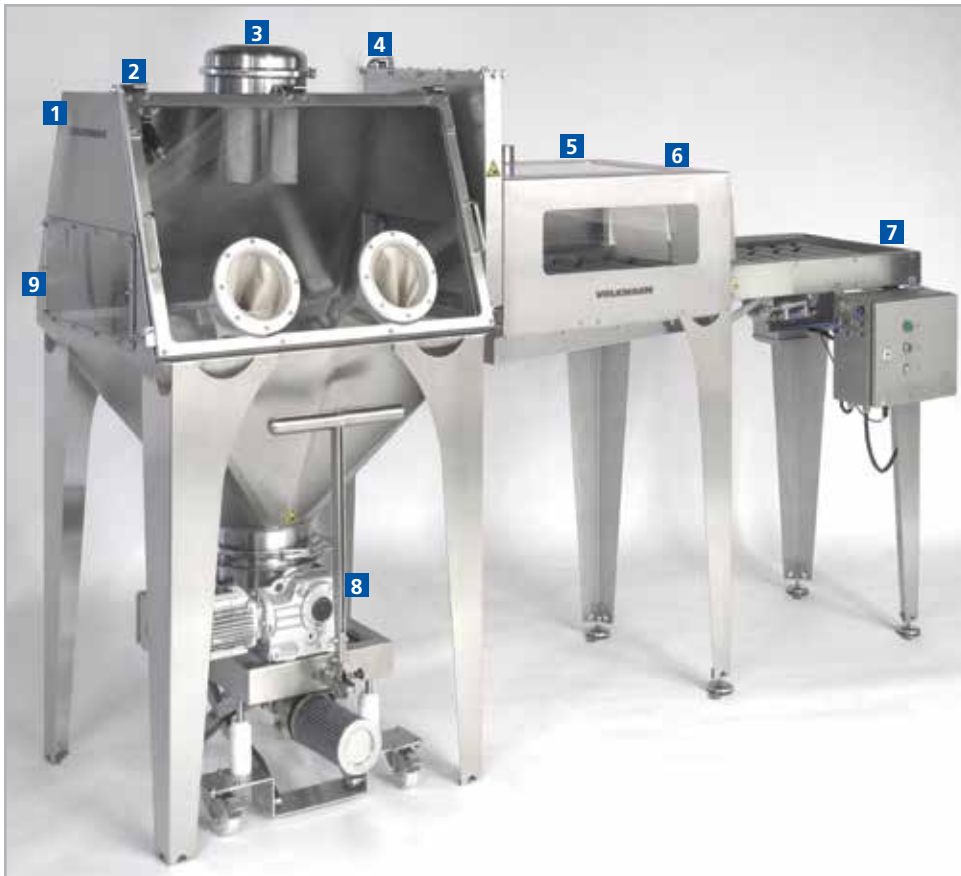
Volkman's lump breakers and material agitators for agglomerates and lumps can easily be docked to the RNT-CON.

They allow for vacuum transport in a closed system free of emissions. Easy to disassemble and clean, they can also be flushed without removal from the RNT-CON.

*(See our Lump Breaker brochure.)*



# Rip and Tip Contained Dump Stations



- 1 Unloading station / isolator (316L).
- 2 Flushing connection with washing-gun or spray balls.
- 3 Continuous Multijector® dusting and filtration option — prepared for on-site aspiration.
- 4 Optional door lock, operated by foot pedal.
- 5 Optional inlet tunnel, built as a lock with separate aspiration.
- 6 Dust protection; second optional pneumatic door lock.
- 7 Roller conveyor, with optional bag separation, and optional vacuum lifting hoist with extended buffer zone.
- 8 Optional material discharge/lump breaker with connection for vacuum conveying.
- 9 Modular connection to bring out the emptied bags, either with bag compactor, endless liner, etc.

Volkmann's Contained Rip and Tip Dump Station (RNT-CON) allows for contamination-free and dust-free opening and discharging of high quality, high potency powders and fines from bags, boxes, and small containers. This ensures that the handling of these products through critical processes remains safe, despite the increasingly demanding production environment.

In addition, the modular design of the RNT-CON feeding station lends itself to flexible production design with various functional units and options to meet processing requirements.

Bags or containers are fed semi-automatically into the isolator via a belt conveyor. They enter a dust-lock section and subsequent negative pressure unloading chamber. Inside the glove box isolator, they are opened manually and discharged into the feeding hopper for transfer by the vacuum conveyor.

Optional lump breakers/crushers and material agitators are available. If required, the closed station can be flushed from within using a hand washing gun or a WIP/CIP system.

## Volkmann Vacuum Conveyors



All Volkmann Bag Dump Stations function seamlessly with Volkmann Multijector® Vacuum Conveyors to provide dense phase vacuum conveying without segregation, damage or abrasion. With Volkmann conveyors and unloaders, you can optimize material flow from the supply side to the downstream packaging operation. When used with a level-controlled buffer hopper, Volkmann conveyors can transfer from as little as 10 lbs./hr. to 6 tons/hr. over distances up to 200 feet, all in dust-free, operator-friendly, and healthy conditions providing sanitary, safe, trouble-free conveying. Choose Volkmann for the optimal transport of powders, granules, food particles, pellets, capsules, tablets and other bulk materials.

# Rip and Tip Contained Dump Stations

## High Containment Dump Stations

Volkmann offers a variety of high containment models ranging from a secure glove box dump station with containment to OEB5 with push-push filter and Hepa filter options. All units provide a closed system with a dust free feed to protect employees and the work environment and meet ATEX certification standards for explosion protection.

The Volkmann Glove Box Rip and Tip bag dump stations depart from the traditional model with a single feed station typically used to transfer product via vacuum conveying systems, to offer three discharge options:

- fluidizing with air or N<sub>2</sub>
- mechanical agitator
- pneumatic agitator

A sanitary feed version with a screen is available for pharmaceutical applications.



OEL Rated RNT



RNT with Drum Tipper and Hepa Filter

# No-Tip Unloader



The No-Tip Unloader eliminates the material flow issues involved when transferring powders, granules, pellets, capsules, tablets, and other bulk materials through conventional unloading methods requiring tipping of the raw material drum, bin, or IBC. This vacuum transport can supply packaging lines, mixers, filling machines, tablet presses, or any other kind of process equipment or vessel (containers, silos etc.) on demand.

The No-Tip Unloader, when combined with a Volkmann vacuum conveyor, offers an interactive, enclosed transfer system with considerable advantages over conventional, old-fashioned, mechanical transport technologies. It features a unique lifting column equipped with three product sensors for product recognition. Activated by the sensors, the column guides the product suction device while initially holding the product repository liner bag in place; then lifting it up to exhaust as much product as possible in the final suction periods. The suction process continues automatically until no product is recognized or an operator mechanically stops the process. The control logic of the No-Tip Unloader has been designed to allow handling of different materials without a new set-up.

## Mobile Hoists

Our mobile hoists' quick, comfortable, and hygienic operation enables easy filling of containers, big bags, and production machines. All you need is one vacuum conveyor to feed into different systems.

Available in a combination of cart, lifting column, and conveyor with:

- Pneumatic hoists
- Manual operated hoists
- Hygienic versions ("pharma-design")
- Customized designs
- Controller box mounted at hoist
- Additional HEPA dust filter or second security filter
- Integration of granules/parts de-dusting
- Installed electrical vacuum pump
- Hose and wand suction attachments
- Customized connections and docking solutions



Mobile hoist with control box mounted on top.



Mobile hoist with filter and suction hose.

