

SHANGHAI YOUWEI Bag Dump



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



www.uv-powder.com

Bag Dump Stations, Drum Tip Stations and Minor Additive Hoppers

SHANGHAI YOUWEI 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 SHANGHAI YOUWEI'S 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 13+ years of manufacturing provides the right solution for your application.



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/304L 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./ft³ and as high as 400 lbs./ft³
- Inert options as required
- A wash-in-place option

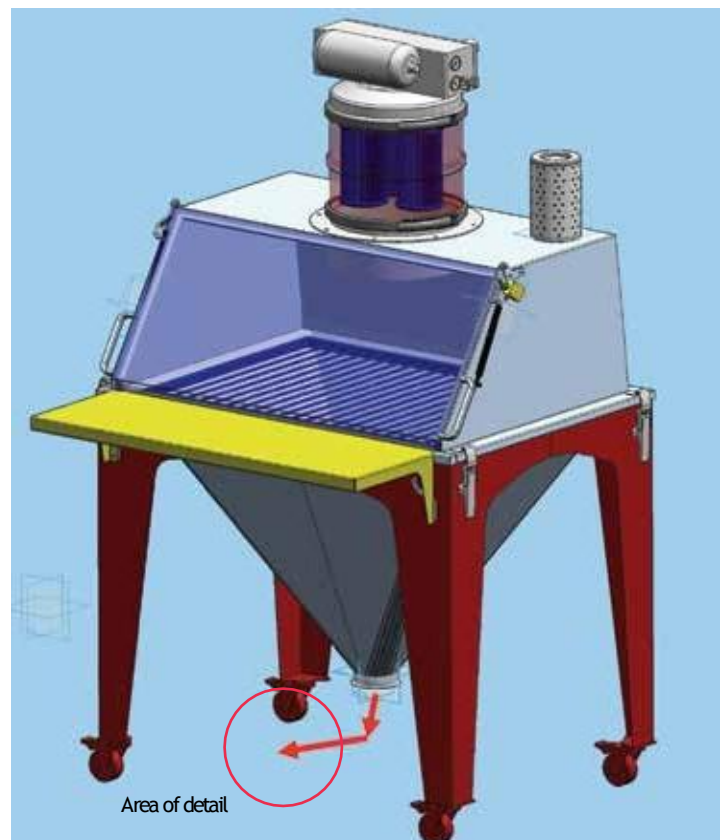
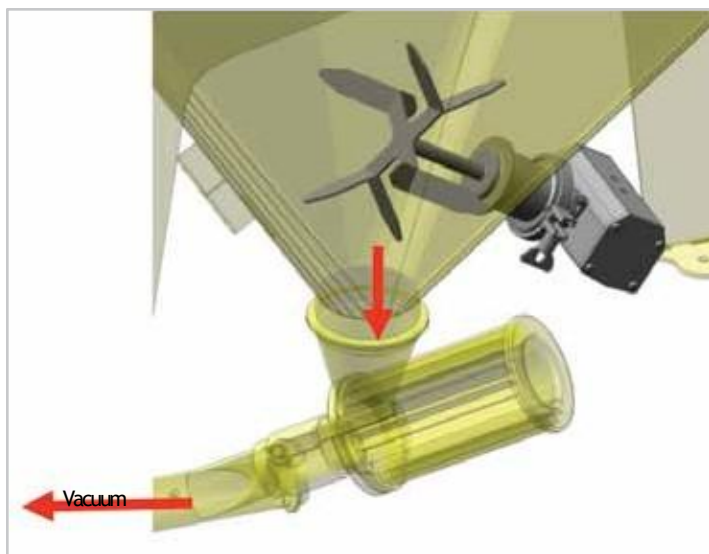
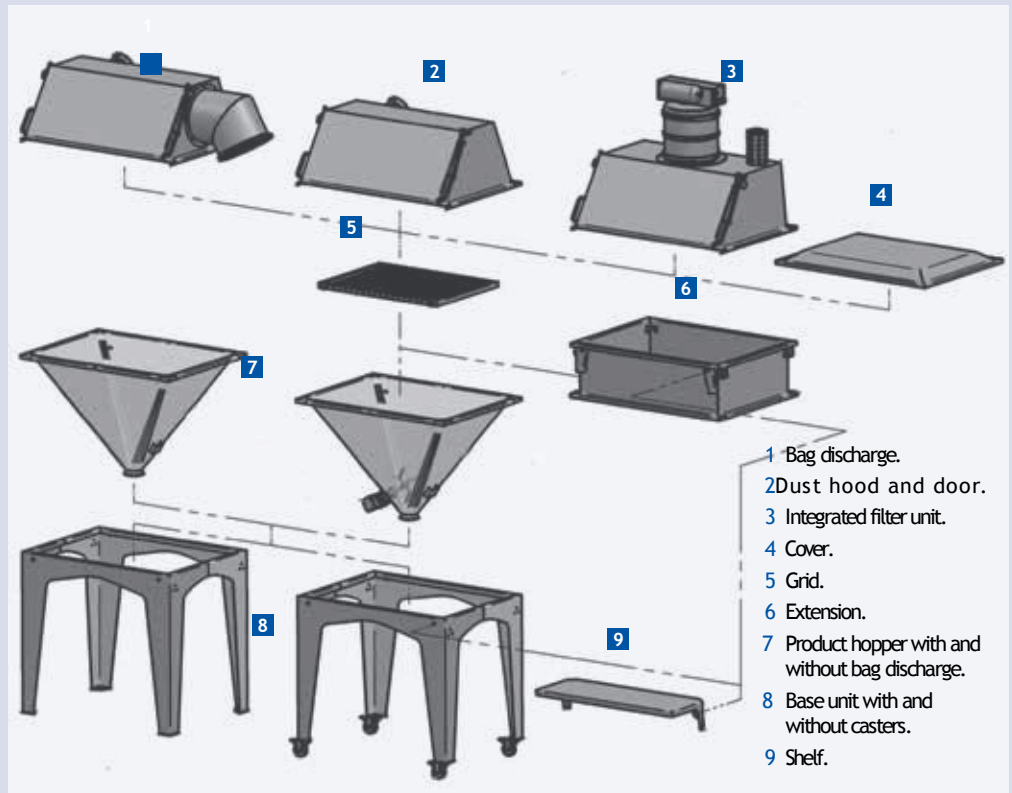
Rip and Tip Bag Dump Stations

Flexibility with Modular Design

The YOUWEI'S 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, YOUWEI'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.

Filter Assembly



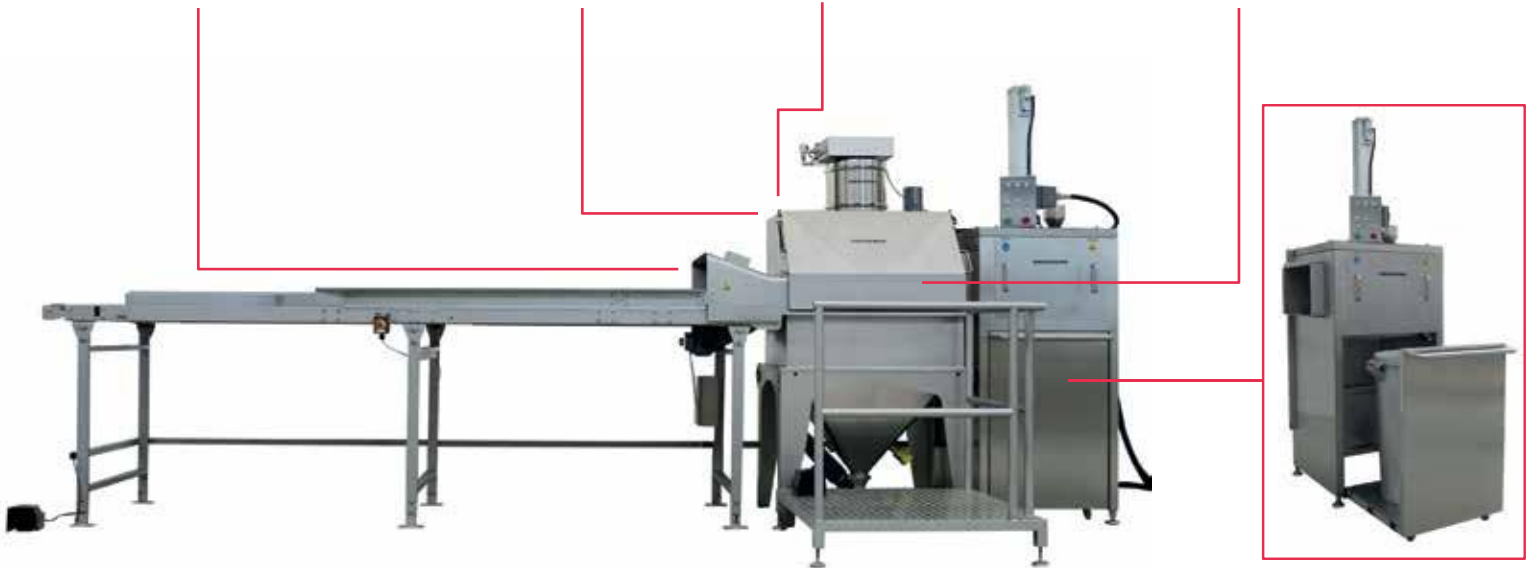
Rip and Tip Unloading Station with filter.



Rip and Tip Bag Dump Stations

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

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.

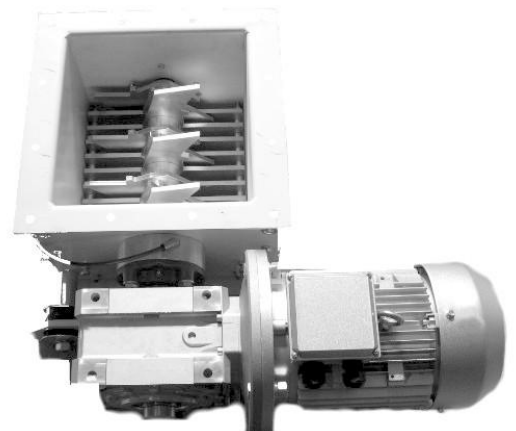
Empty bag compactor.

Lump Breaker

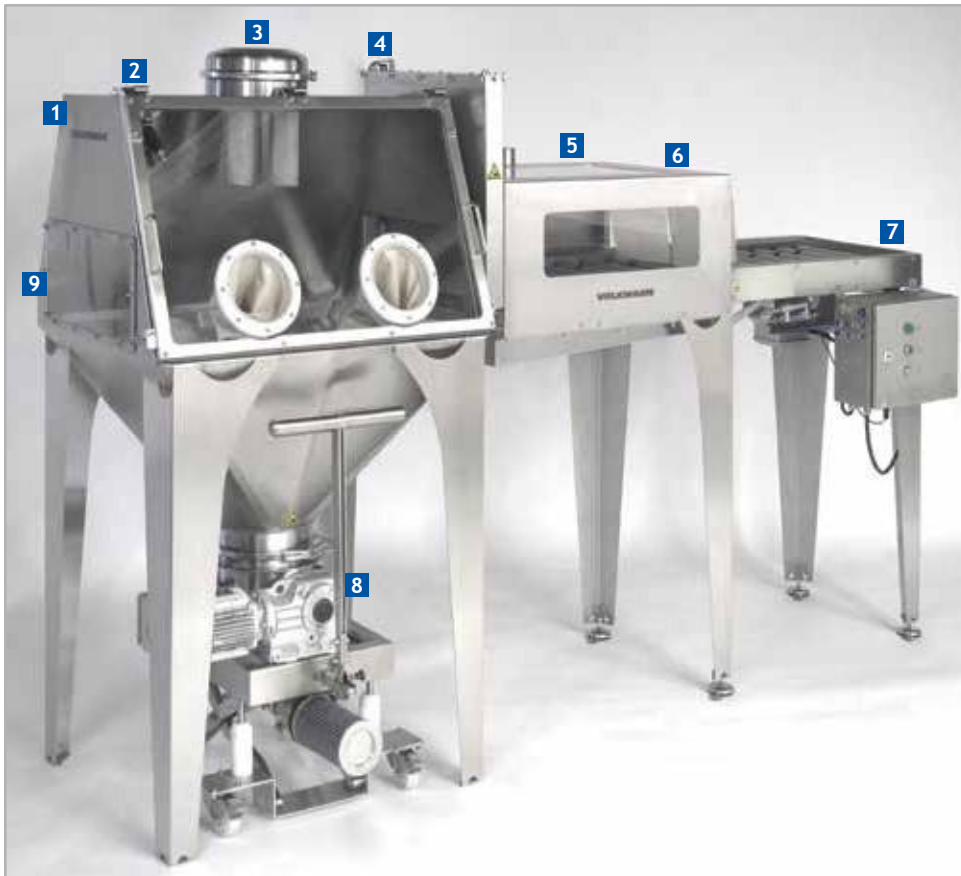
YOUWEI'S lump breakers and material agitators for agglomerates and lumps can easily be docked to the RNT-CON.

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 Bag 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.

YOUWEI' 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.

YOUWEI'S Vacuum Conveyors



YOUWEI'S Bag Dump Stations seamlessly integrate with Multijector Vacuum Conveyors, offering damage-free dense phase vacuum conveying. Optimize material flow with Volkmann conveyors, ensuring sanitary and trouble-free transport of various bulk materials. Choose YOUWEI'S for efficient powder, granule, and bulk material transport.

High Containment Dump Stations

SHANGHAI YOUWEI 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.

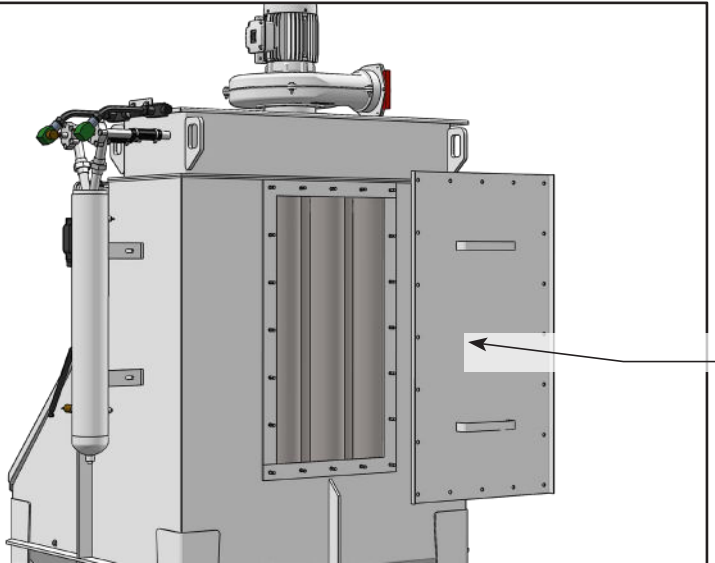
The YOUWEI'S Glove Box Rip and Tip bag dump stations depart from the traditional model with a single feed station typically used to transfer product via vacuum conveying systems, to offer three discharge options:

- fluidizing with air or N₂
- mechanical agitator
- pneumatic agitator

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



Installing Filters - Accessing Dirty Air Chamber

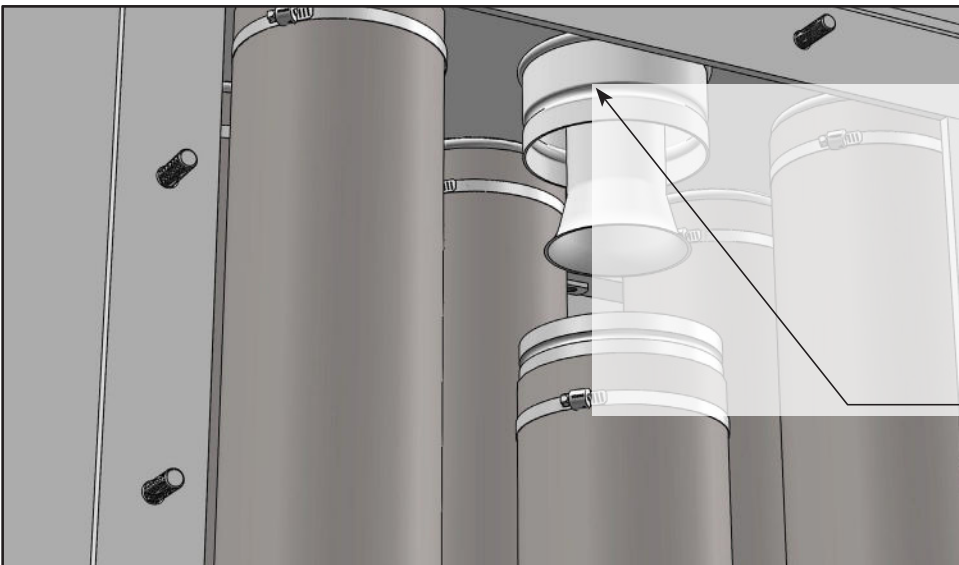


Step 1

Loosen Bolts & Remove Door

Loosen all nuts. Once all nuts have been removed the rear access door can be removed and stowed.

Rear access door

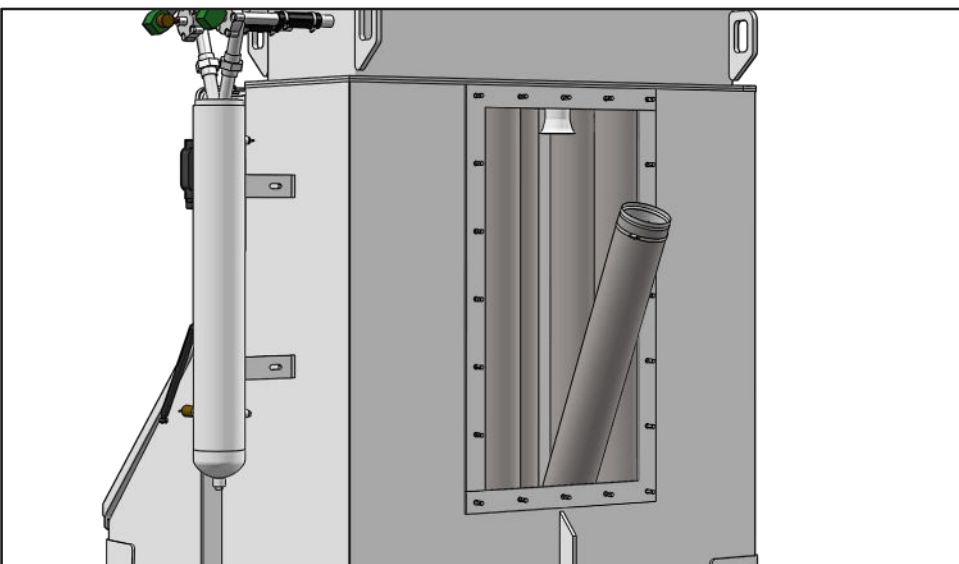


Step 2

Loosen Band Clamp

Starting at the middle filter, loosen the band clamp enough that the cage can disengage from the mating ring seat. Pull the filter and cage off of the tubesheet mount.

Mating ring seat

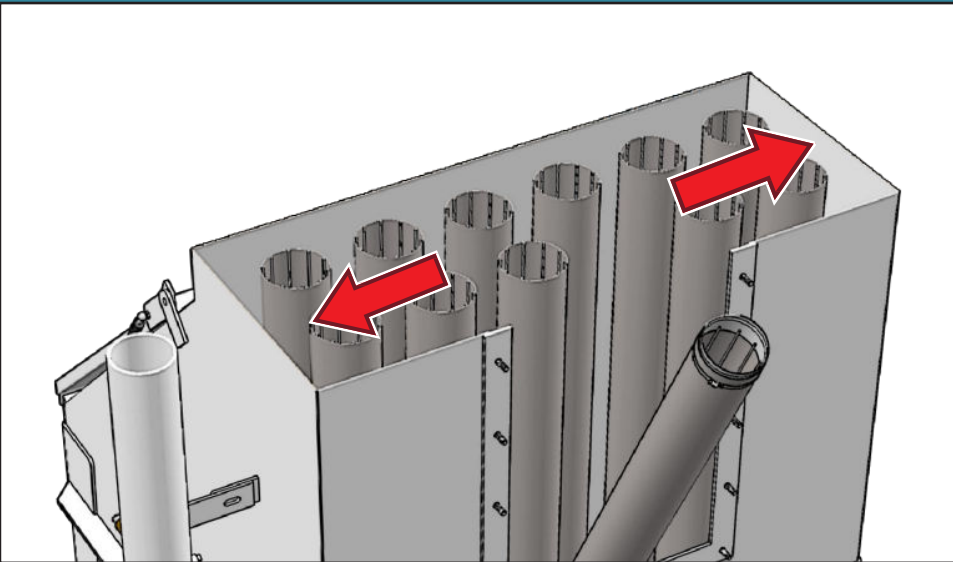


Step 3

Pull Filter & Cage Out

Pull the filter and cage out of the rear access door.

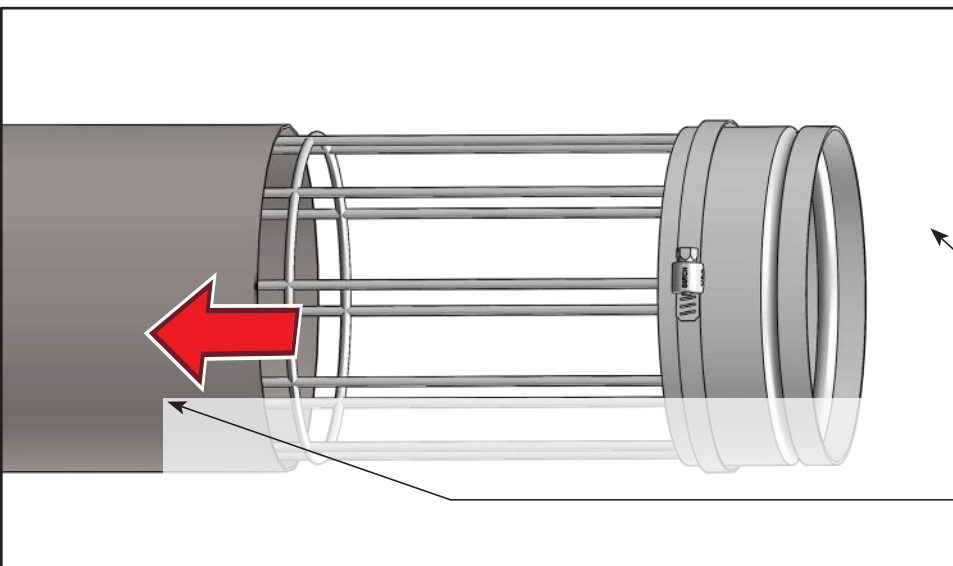
Installing Filters - Accessing Dirty Air Chamber



Step 4

- Remove Remaining Filters & Cages

Working your way towards the corners, remove each cage and filter as you go.



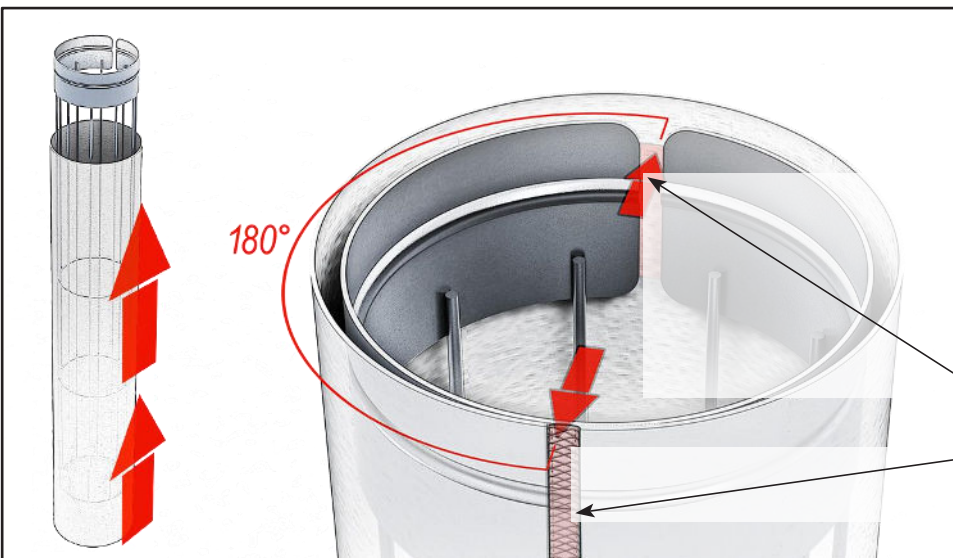
Step 5

- Remove Filters from Cages

After cages and filters have been removed, loosen the band clamp fully so the filter can slide off of the cage.

Loosen band clamp fully

Slide filter off cage



Step 6

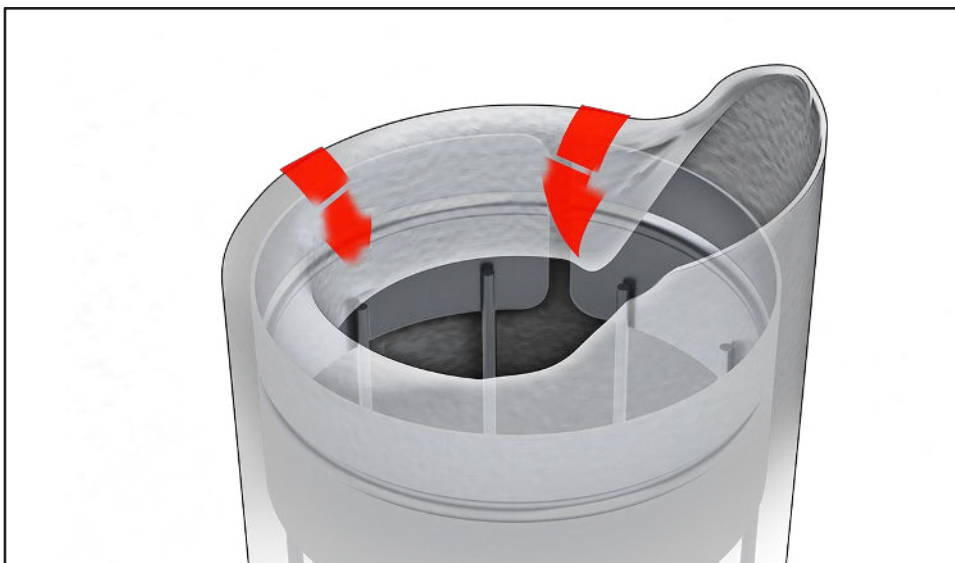
- Install New Filters

Slide the new filter onto the cage. Ensure that the expansion groove is located opposite the filter seam.

Expansion groove

Filter seam

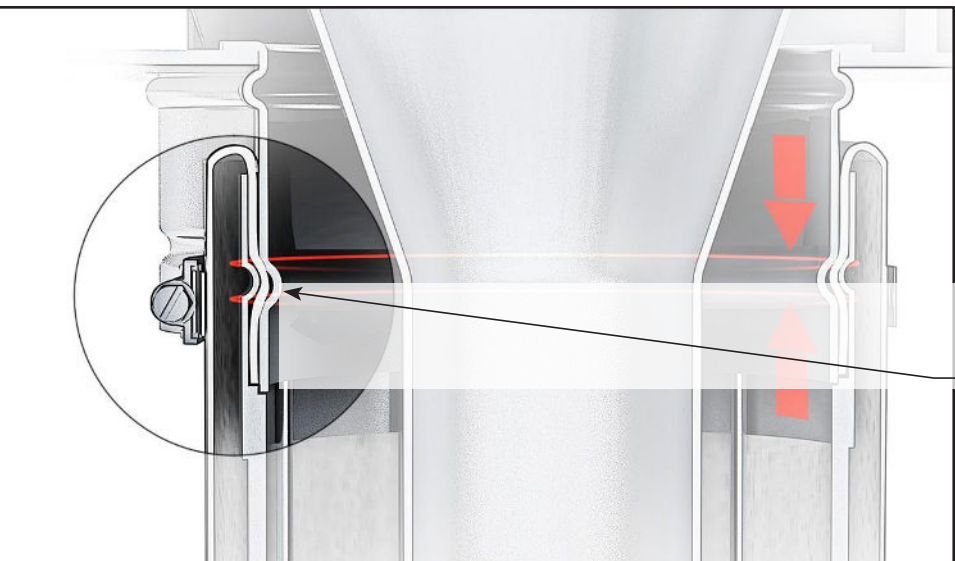
Installing Filters - Accessing Dirty Air Chamber



Step 7

□ Wrap Filter Around Cage Top

Filter should have access material wrapped around to inside of cage before placing it on the tube sheet.

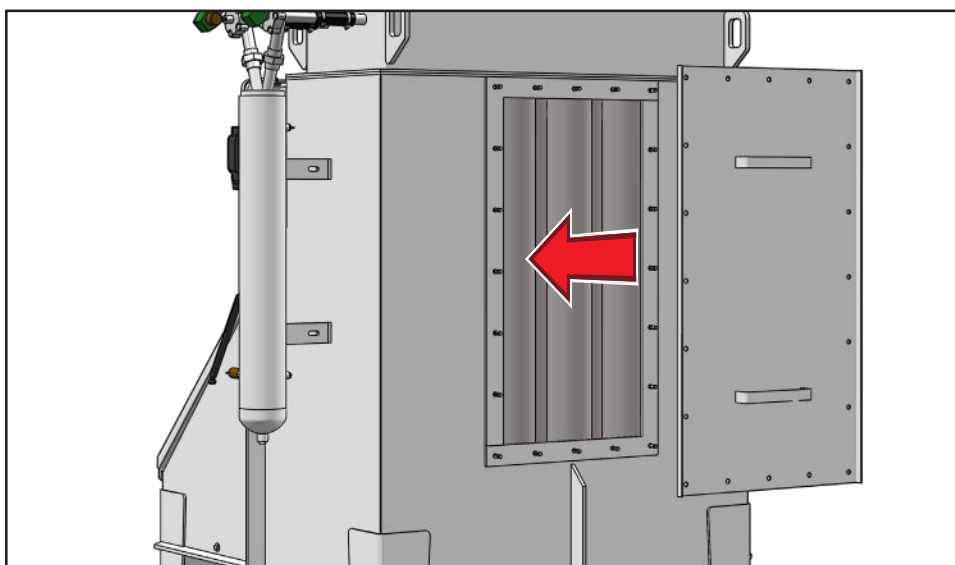


Step 8

□ Install Filters & Cages

Working from the furthest outside corners to the middle, install each filter, cage and band clamp as you go. Ensure each band clamp is positioned inline with the mating ring seat and is fully tightened.

Align mating ring grooves

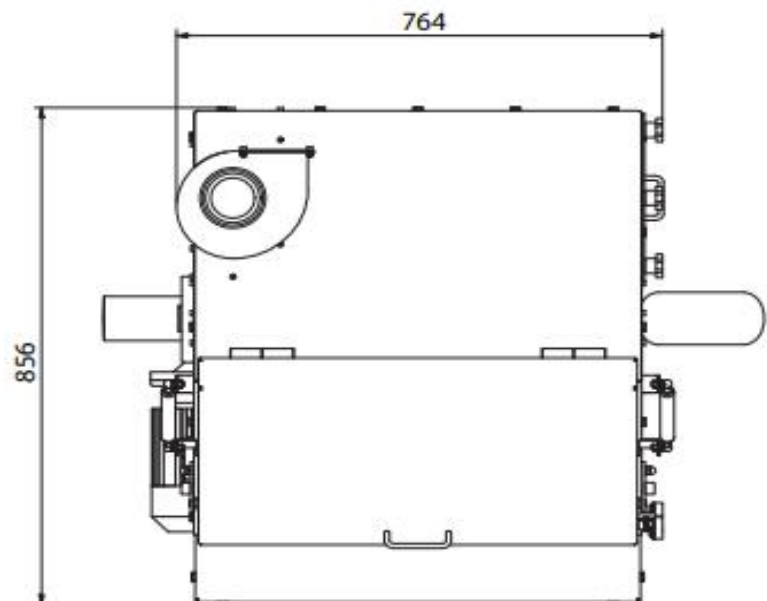
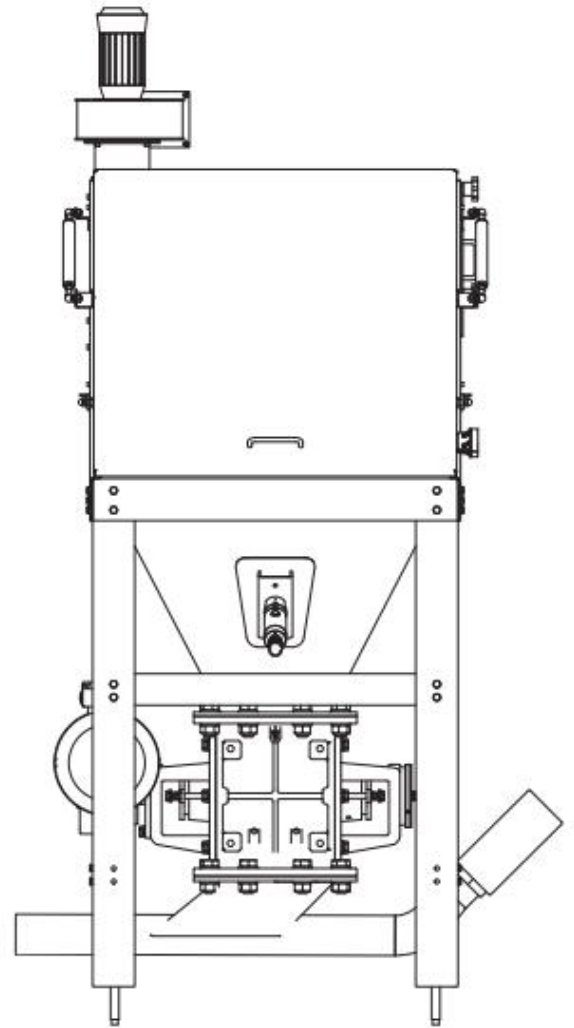
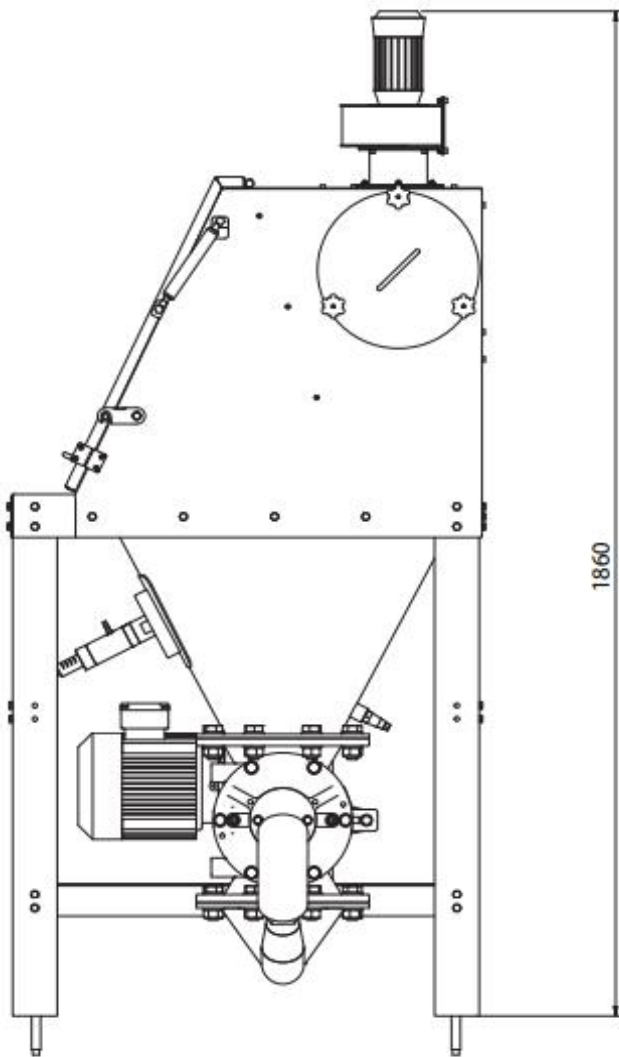


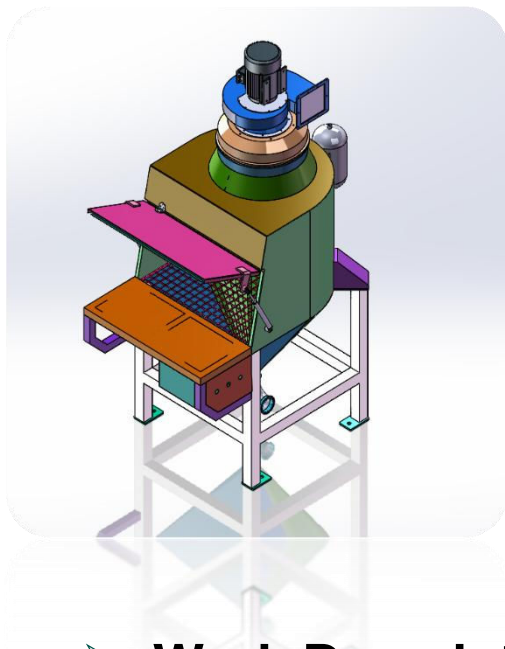
Step 9

□ Reinstall Access Door

Install access door and fully tighten all fasteners.

Dimensions of the Bag Dump station with a rotary unit





When small bags of materials need to be unpacked and poured into the next process, they only need to be unpacked manually and put into the system. Due to the function of the dust collection fan during unpacking, the dust of the materials can be avoided from flying everywhere. When materials pass through the vibrating screen (safety screen), large pieces of material and foreign matter can be intercepted, thereby ensuring that particles that meet the requirements are discharged. The system is suitable for unpacking, placing, screening and unloading of small bags of materials in the pharmaceutical, chemical and food

➤ Work Description:

The dust removal and filtering feeding operation table can realize the manual feeding process without dust spillage. The unpacked materials enter the cone inside the feeding table. The spilled dust is adsorbed by the strong negative pressure airflow during the overflow process, and then is absorbed by the filter element. Blocked, the clean gas will pass through the filter element and then be discharged through the fan;

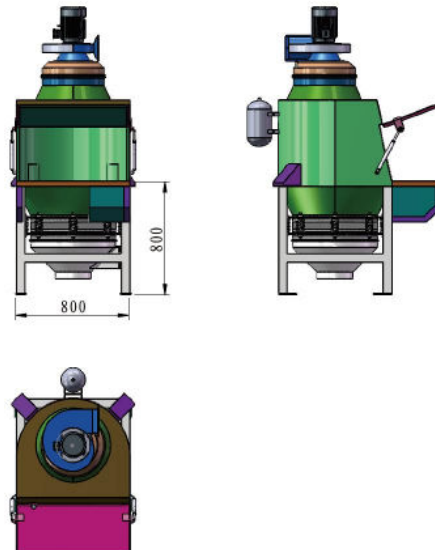
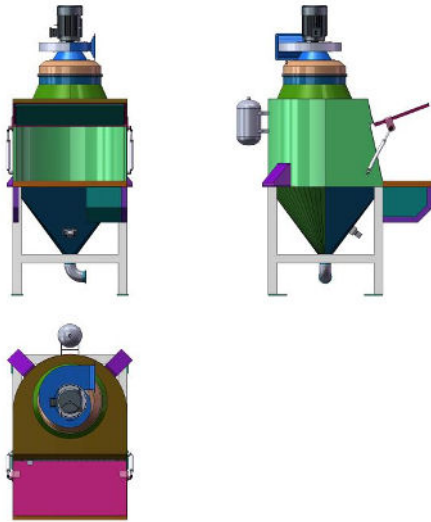
During the working process of the system, the adsorption of materials by the filter element will lead to an increase in filtration resistance. Therefore, high-flow pulse injection pressure is required to backflush the filter element. The backflush action is triggered by the proximity switch when the hatch is closed. The system automatically backflushes. . Reduce or remove materials adsorbed on the surface to keep the operating resistance of the fan within the allowable range.

The material in the cone of the bag opening station is transported to the downstream device through a negative pressure or positive pressure conveying system. Small dust from operation can be achieved on site.

➤ Selection table

ModelS	Size	Power	Screen	Material
TLZ-800	1200*800*2350	1.1kw	None	304/316L
TLZ-ZD-800	1200*800*2350	2.2KW	20 mesh	304/316L

➤ Device photos:





➤ Application

- **Bag Dump Stations are a Game-Changer!!!**

Ergonomic Advantage: Say goodbye to backaches and lifting strain! These stations provide a raised platform for easy bag handling, reducing risk of injury and operator fatigue.

Precise Dosing: Pre-weighed bags ensure accurate ingredient amounts, minimizing waste and maintaining product consistency.

Multi-Product Versatility: Seamlessly switch between different ingredients on the same production line, maximizing line uptime and efficiency.

Beyond Food: Not just for sugar and spice! Bag dump stations



- ✓ Integral Dust Collection With Filters
- ✓ Reverse Air Jets for Filter Cleaning
- ✓ Ergonomic Design Reduces Injuries

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*Invest in your operators' well-being and boost your
production efficiency with SHANGHAI YOUWEI
Contact us today to learn more*



- ◆ Powered by technology and survive by quality
- ◆ High cost performance—super high quality, super low price
- ◆ Lifetime service



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