

Big Bag Emptying Station

► Big Bag Emptying from Simple to High-End

From simple discharge stations to individually designed emptying systems - we supply a wide range of options or add-on components for optimum discharge processes even for products with unfavourable flow properties. On request, we also integrate downstream screening, mixing, conveying and metering processes into our solutions.

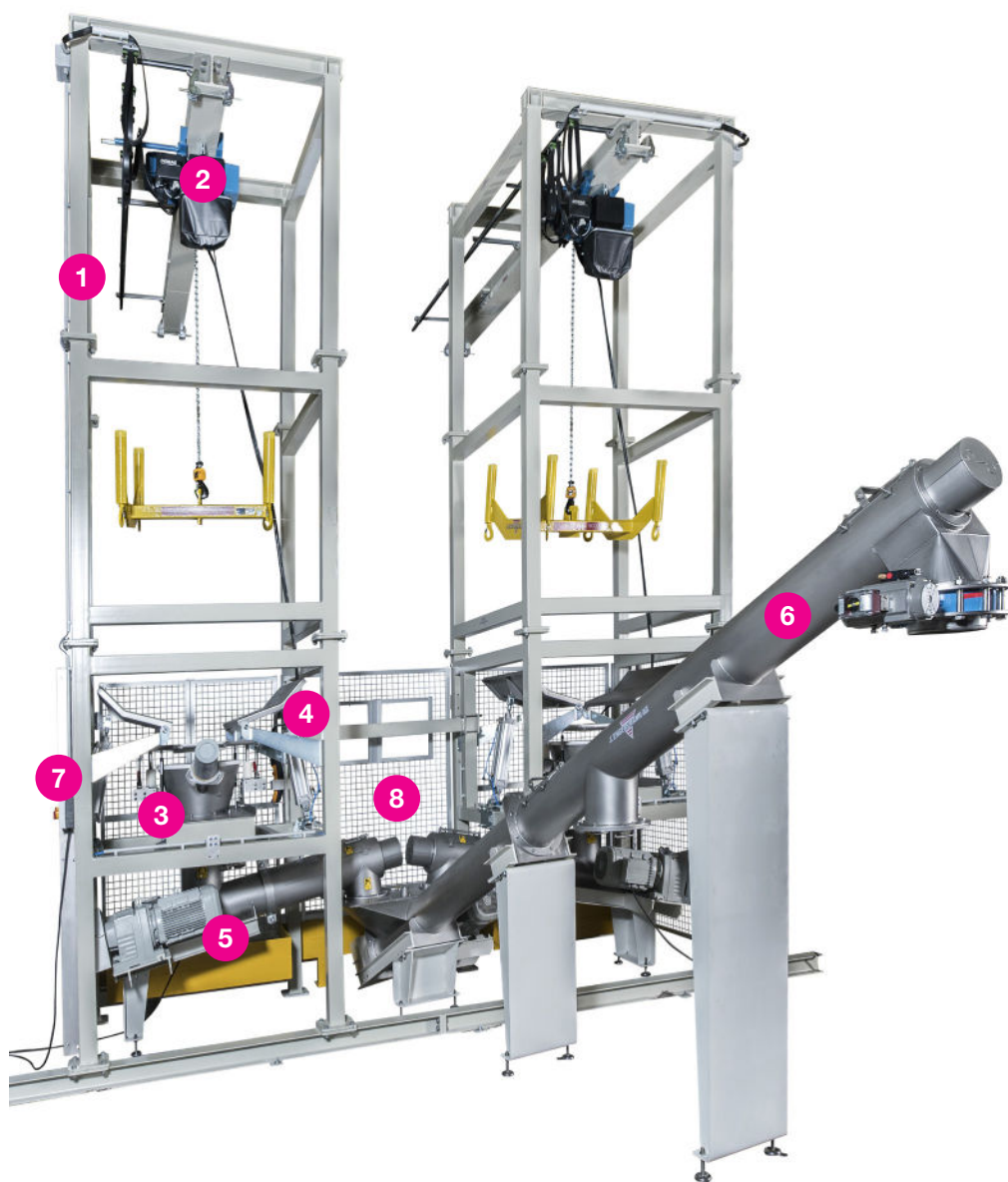
Whether for basic and fine chemicals or in hygienic design for applications with food and pharmaceuticals - we value consistently high quality: from the design, through the selection of components and materials, to the creation of suitable documentation packages.

► Areas of Application

Chemical	Plastics	Pharma	Food	Similar Industries
•	•	•	•	•

► Bulk Solids

Grains	Coarse Powder	Fine Powder	Fatty Products	Granules
•	•	•	•	•



- 1 Base Frame
- 2 Feed Solutions
- 3 Big Bag Connection Systems
- 4 Emptying Aids
- 5 Product Preparation
- 6 Conveying
- 7 Control Units
- 8 Safety Guards

Big Bag Emptying Station

1 Base Frames

Discharge racks must be designed to have enough loading capacity for the big bags to be discharged and the attached components.

Our rack variants:

- Normal or stainless steel
- Modular in different heights
- Square or round profiles for hygienic areas



3 Big Bag Connection Systems

Standard Connection System (low dust)

- Simple, low-cost and low-dust emptying device
- Stainless steel with different surfaces
- With or without aspiration nozzle
- Robust clamping device with double sealing
- Manual operation with ergonomic manual tensioner

JEL Emptying Hopper (dust-tight)

- Discharge hopper with robust, dust-tight cover
- Opening and closing of hopper cover manually or pneumatically
- Completely in stainless steel in various surfaces and surface roughnesses (also in Hygienic Design)
- Sealing with the aid of an inflatable seal or by lowering the hopper lid



2 Feed Solutions

Lifting in the big bags must be fast, efficient and, above all, safe. We offer three options for loading the station with big bags:

- Forklift and lifting cross
- Combination with on-site crane track (in this variant, the rack is designed to be open at the top)
- Crane integrated in the frame with operating control



4 Emptying Aids



Spring Tensioning

Compression springs in the emptying frame or loading gear ensure that the big bag does not form folds in which product can get stuck during emptying.



Paddle Devices

Two support paddles lift the big bag sideways during emptying. Material bridges above the outlet are collapsed and even difficult flowing products can be discharged more easily.



Vibration Tables

The big bag is placed on the U-shaped vibration table. The vibration is transferred to the product in the big bag, which immediately starts the mass flow.



Mushroom and Bar Pressure Systems

Mounted on the side of the rack, they press against the outer wall either punctual (mushroom) or over a larger area (bar). Caking product on the inner walls of the big bag is also dissolved and discharged in this way.

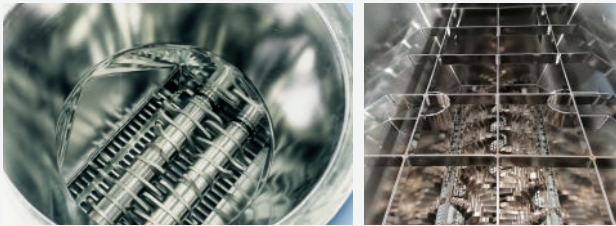
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5 Product Preparation

Very often, for example, agglomerates have to be crushed or foreign bodies or oversize and fine particles have to be separated.

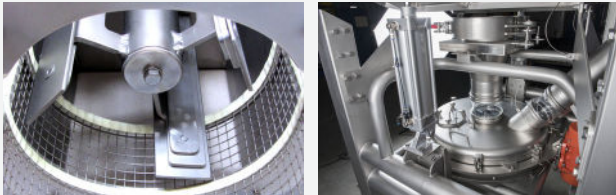
Crushing Technology

Dissolving of agglomerates or lumps with the help of lump breakers.



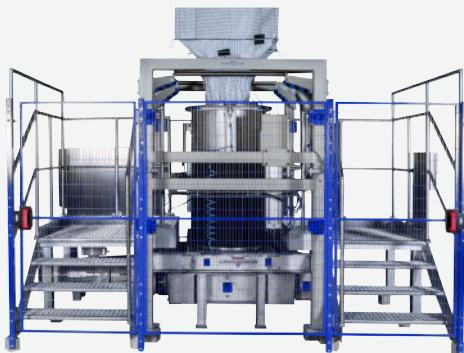
Screening Technology

- Separation of oversized particles and fines
- Classifying screening (if you need the product in different particle size fractions)
- Protective screening or separation of foreign particles
- Straining sieves (breaking up of lumps)



7 Protective Fences

Safety guards ensure that operators have sufficient safety distance at the most critical points and that unauthorized persons cannot interfere with the process.



- Simple protective fences
- Special solutions with many safety features
- Light barriers
- If required with walk-on service platforms

6 Conveying



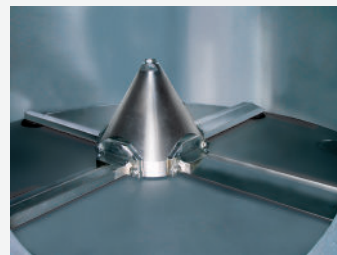
Mechanical Dosing and Conveying Devices

- Pipe and trough screw conveyors
- Conveyor belts
- Vibrating chutes
- Discharge rotary valves



Conveying and Dosing

- Pneumatic feeding device for connection to pneumatic conveying lines
- Blow-through rotary valves for metered product feeding



Rotary Discharge Devices

- Support the discharge of difficult flowing and caking bulk materials from big bags
- Ideal for preventing bridging and tunneling during material discharge

8 Control Units



The more complex the emptying solution, the more important it is...

- that the operator always maintains an overview of his process and
- that operator errors are excluded, e.g. by automation or certain control mechanisms

We offer you a comprehensive selection of control options: From simple operation devices to fully automated, programmable control systems with touchscreen.

Variants and Advantages

► Variants

- Standardised solutions and individual discharge concepts
- Low-dust and dust-tight solutions with high-performance filter technology
- Various materials and surface treatments
- Other options: Weigh cells for controlled, automated product discharge, and closing devices for partial discharges
- Maximum height: 6 m (special heights on request)
- Maximum load capacity: 2,000 kg
- ATEX versions for explosive areas
- Containment version for use up to OEB 4
- Different documentation packages for qualification

► Project Examples



Big Bag Emptying System for lactose in hygienic design

- Dust-tight discharge hopper and paddles as discharge aids
- Vibrating circular sieve mounted under the discharge hopper for protective screening immediately after product emptying
- Magnetic separator for reliable separation of any metal residues in the product
- Metered, pneumatic discharge of the product via a down-pipe with an attached blow-through rotary valve, or
- Filling of a drum by a filling head integrated in the station

Convincing Facts

- ✓ Highest quality for materials and manufacturing - also for purchased components
- ✓ Optimal Big Bag emptying even with difficult products
- ✓ High process reliability through design tests in our own technical center
- ✓ Suitability for highest safety and hygiene requirements
- ✓ Also available: Emptying systems for Containment up to OEB 4
- ✓ Constructive adaptation of components up to individual special solutions



Flexible emptying, screening and conveying: Big bag emptying system for a contract packer

- Designed for a wide range of different products and discharge tasks
- Feeding of the station by an integrated crane track
- Attached straining sieve under the discharge device for agglomerated products
- Mobile inclined screw conveyor for discharging the product into a weighing hopper or a bagging machine
- Alternatively: Pneumatic conveying by attaching a pneumatic feeding device
- Integrated vibrating screen for separation of foreign particles

► Contact us

You have questions or need a non-binding quotation? Our experts are happy to help you!

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