

# EMDE

Automation



Emptying of:

big bags,


sacks and drums



Big bag emptying station for feeding differential dosing scale

## Flexible solutions for every big bag

Almost all bulk materials can be stored, transported and discharged using big bags (also known as FIBCs). For these reasons, the big bag is a widely used transport container in all industries. To simplify handling when emptying big bags, EMDE offers a variety of solutions for emptying your big bag safely. Task-specific discharge aids in the form of roller systems and/or vibrators ensure emptying. Of course, all EMDE big bag emptying systems are available in -protected design.

- Individually configurable modular principle
- Intelligent and customized solutions for all big bag variants
- User-friendly and space-oriented individual solution
- Clean and safe big bag handling
- -protected version for dust and gas Ex areas



Frame for forklift loading



Frame with integrated chain hoist



BE 1400 in low-profile design

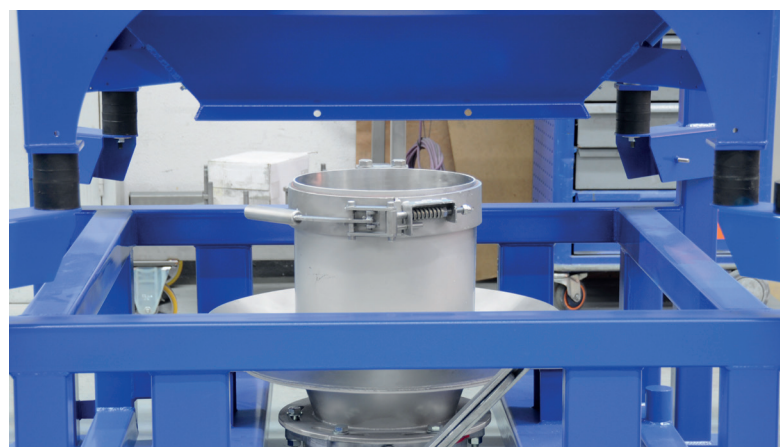
## One-handed solution BE 1400

The robust EMDE one-handed bag clamp is the easiest way to clamp the big bag discharge hose firmly to the product pipe. The dust collection tray prevents product residue from falling onto the floor after the big bag discharge hose has been detached.

- Fixed connection for the big bag discharge hose
- Easy closing and opening of the one-handed bag clamp
- Dust collection tray for clean handling



BE 1400 with sack chute and iris collar fastener



One-hand sack clamp



BE 1500 with 3-sided support railing

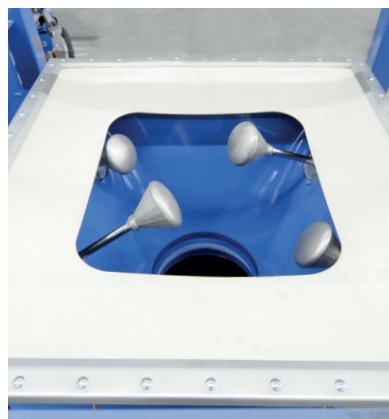
## The universal variant BE 1500

With this design, which has been tried and tested for decades, all big bag designs and sizes can be emptied safely and with low dust. The replaceable and tear-resistant rubber membrane of the feed hopper ensures a dust-tight connection to the big bag bottom. With simultaneous dedusting of the feed hopper via the aspiration nozzle on the operating door, very clean handling is possible.

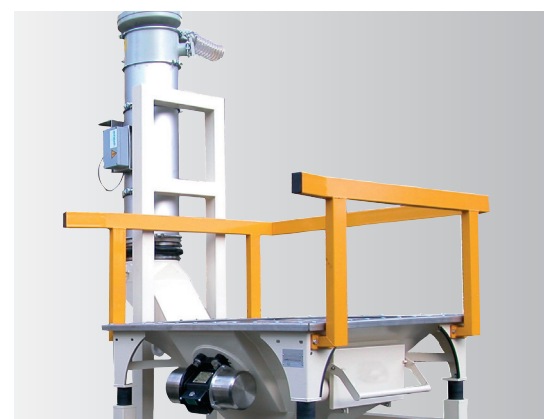
- Universal solution for all Big Bag variants (with and without discharge hose)
- Secure attachment via large service opening
- Dustproof rubber membrane to the big bag bottom



BE 1500 with aspiration channel and vibrator



BE 1500 with floor flexing



BE 1500 with attached filter incl. dust recirculation



BE 1600 incl. HSS

## Fixed big bag connection BE 1600

A fixed connection of the discharge hose to the emptying station via a dual ring docking system with a pneumatically or manually operated docking plate ensures very clean and low-dust operation.

- Fixed connection of the big bag discharge hose
- Targeted aspiration of the closed docking system
- Evacuation of the big bag possible after emptying
- Ergonomic hand lever closure or pneumatic actuation of the sealing plate
- Optimum big bag emptying through the pneumatic retightening device of the docking system
- Inner inflation hose in the docking plate additionally secures and seals the discharge hose



BE 1600 with docked big bag discharge hose



BE 1600 with pneumatic docking



BE 1600 Sealing plate with toggle clamps



BE 2000 incl. control system

## Containment solution BE 2000

The requirements for the personal protection and the environment, as well as product quality, are rising continuously. The BE 2000 from EMDE is therefore designed to prevent contamination of the environment by dust or contamination of the product by external influences as far as possible. The system makes it possible to achieve containment level OEB4. Through the the construction of the system and the intuitive controls, the big bag can be docked and undocked in just 5 steps. In addition to the interchangeable film cartridges and the necessary sealing clips, no other accessories are required. To check the closure of the film liner, the system can be optionally extended to include a leak test.

- Emptying of big bags up to containment level OEB 4.
- Docking and undocking the big bag in just 5 steps
- Suitable for use with food and flammable solids



Docking system BE 2000 - foil tube with sealing clip



Solution with BE 2000



Automatic big bag emptying station

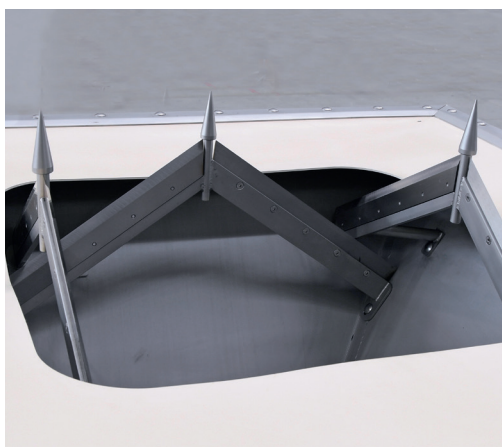
## Automatic emptying- safe, quick and dust-free

To simplify the handling when emptying the big bags, EMDE offers solutions that eliminate the need for manual intervention during emptying. The big bag bottom is cut open with a knife system adapted to the application as a pyramid knife, u-shaped knife or rotating circular knife.

- Emptying up to 25 big bags / h
- Handling of 4, 2 and 1-loop big bags
- Automatic cutting of big bags with and without discharge hose



Slicing with rotating circular knife



Slicing with U-shaped knife



Slicing with knife pyramid



Big bag emptying station with movable support frame

## Support frames for all applications - even for low room heights

### Variante „HST“; Lifting column with movable support frame

- Automated positioning of the big bag
- Full use of the room height
- Height of lifting column freely selectable

### Variante „HSS“; Pivoting lifting column with electric chain hoist

- Manually or automatically pivoting lifting column with electric chain hoist
- Easy manual swiveling through the heavy ball bearing slewing ring

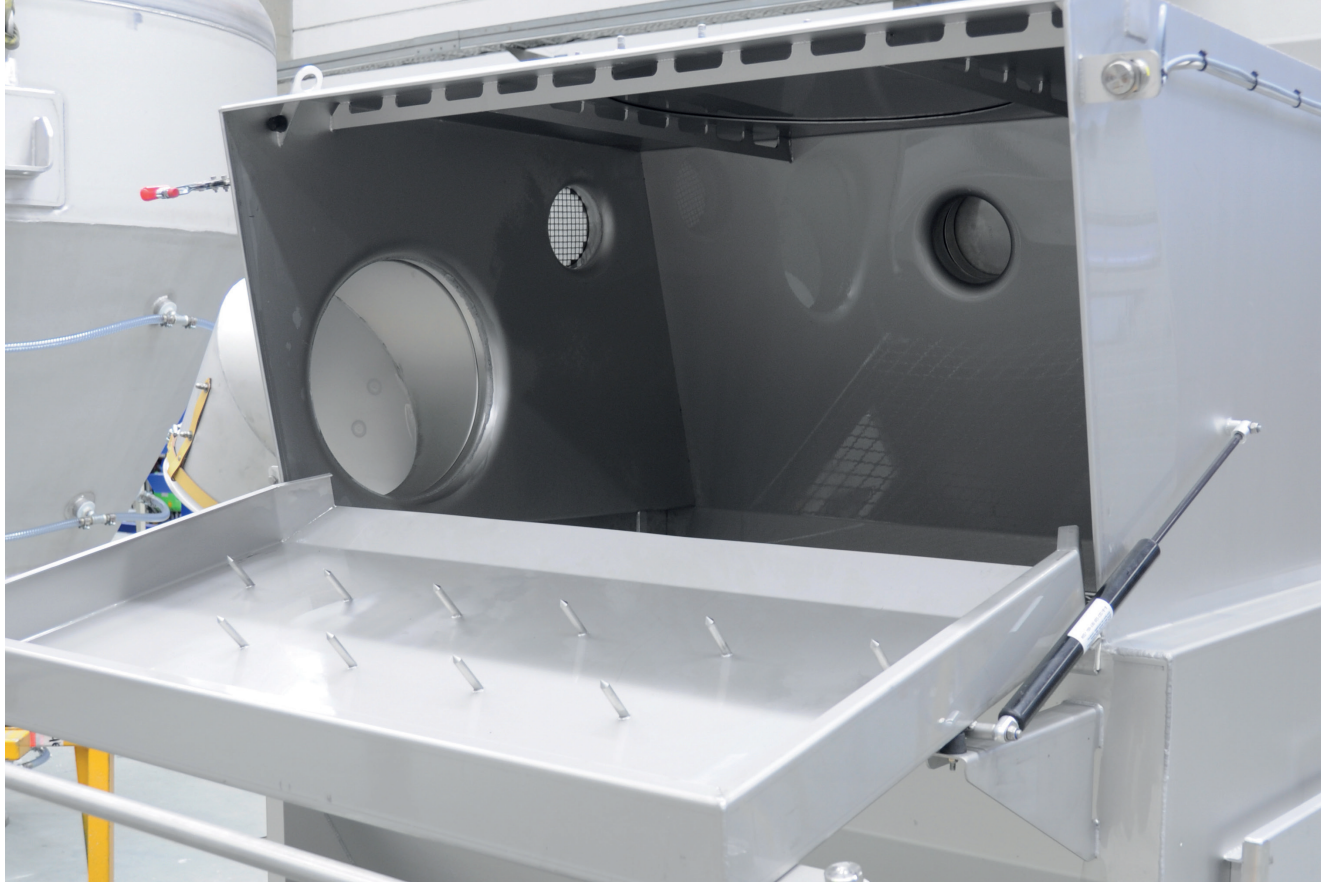


HST with big bag docking system



HSS with screw conveyor and frame scale





Sack emptier with gas spring-assisted emptying flap with holding spikes for sack fixation

## Sack emptying Typ SE

The classic container for bulk goods handling is still the bag. It enables the manual handling of bulk material directly at the emptying point. Despite a reduced weight of max. 25 kg in accordance with legal regulations, an emptying aid for sack emptying is very helpful. The sack emptying with an emptying flap and welded-in retaining spikes in the area of the bag support ensures very low-dust handling. During the emptying process, the flap is folded up and closed with the aid of a gas spring. The dust is extracted via the filter fitted on the dust collection hood and, when the emptying flap is closed, cleaned directly into the feed hopper.

- Ergonomically optimized sack handling through the gas spring-assisted emptying flap
- Secure fixing of the sack on the emptying flap with retaining spikes
- Closed system during the emptying process
- Dedusting via product-adapted filter systems
- Low-dust empty sack disposal via empty sack spout or empty sack compactor
- Relief for the operator



Sack emptier with empty sack spout



Sack emptying hood with fan and dust bag for flange-mounting on container



Sack chute type ST in mobile version for refilling dosages

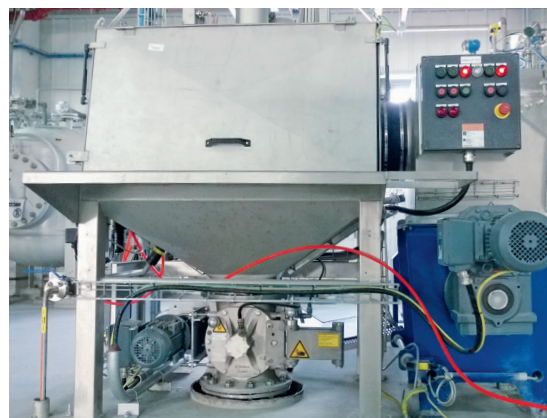
## Sack chute Typ ST

The input opening, which is always open during the emptying process, enables very fast sack handling. When not in use, the service flap can be closed tightly through the all-round hollow profile seal. The resulting empty containers can be disposed of in waste bags through an empty sack nozzle welded into the side of the dust collection hood or via a directly connected empty sack compactor with low dust levels. Material clumps or foreign bodies are safely retained by an optional vibrating screen.

- Optimum sack handling when emptying large quantities of product
- Tight-closing service flap with hollow profile seal
- Integration of a protective screen possible
- Low-dust empty sack disposal via empty sack nozzle or empty sack compactor



Combined sack/big bag emptying



Sack chute with downstream rotary valve



Optimum work surface for handling various containers



Ergonomically perfected sack emptying cabin

## Sack emptying cabin type SK

The „glove box“ is the logical response to the product-related need for closed material handling. Inside the closed cabin, the sack is cut open with a manually operated safety knife and then emptied. The process is monitored via a large plexiglas viewing window. LED lights ensure optimum cabin illumination. The sack is then disposed of dust-free via an empty sack nozzle or a connected empty sack compactor.

- Dust-tight product handling within a closed dust collection hood
- Perfect freedom of movement using long, interchangeable, gauntlet gloves
- Observation of the emptying process via viewing window in the dust collection hood
- Safe working with spring-loaded safety knife
- Interior lighting with low-maintenance LED technology



Input opening with tightly closing flap



Sack handling via gauntlet gloves and safety knife



Combined sack/big bag emptier with iris collar closure for reclosing a big bag

## Combined sack / big bag emptier type STBE

Global material procurement on the world market requires a flexible response to different container types. The combined sack/big bag emptier is the logical answer to maximum flexibility. The dust removal from the emptying process takes place via the common dust collection hood. The big bag binding is opened via the product downpipe integrated inside the dust collection hood.

- Partial quantity removal from big bags via iris collar closure or rope pull closure
- Discharge of several components into the subsequent processing process possible
- Flexible material procurement on the global market without specifying a container type



STBE with walking device



STBE with three-sided support railing

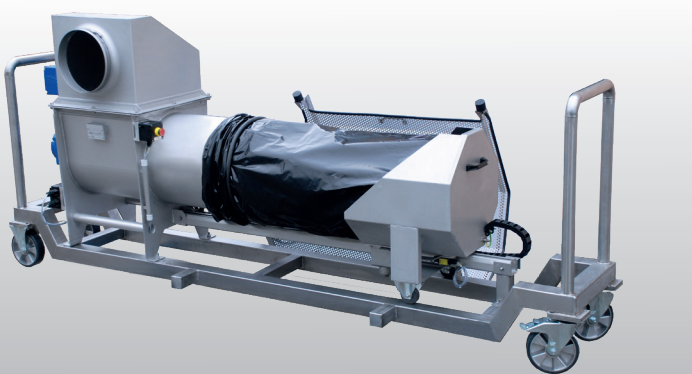


LSV 400 with large insertion flap

## Empty sack compactor LSV 400

Where to put the empty sacks? The EMDE empty sack compactor addresses this issue. The empty sacks are fed low-dust directly at the point of delivery through a chute that complies with safety regulations. A sack emptying station can be connected directly to the existing system via a connection shaft. Compression of the sacks is achieved via a degressive compressor screw. Additional compaction is provided by a brake slide with adjustable braking force. The empty sacks are pressed into a tear-resistant tubular film.

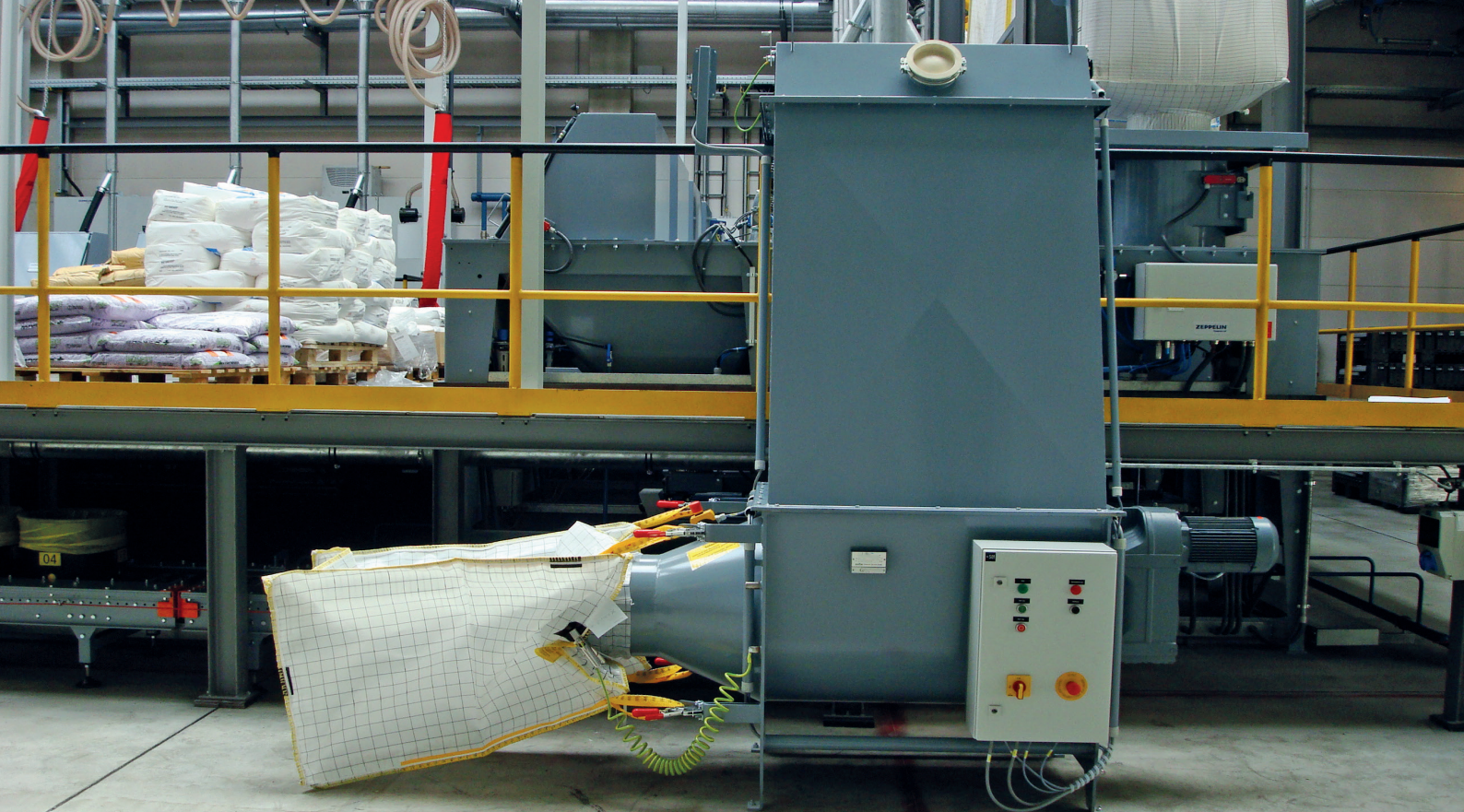
- Low-dust disposal of paper and plastic bags directly at the workplace
- No annoying dust generation at the workplace due to manual squeezing of empty sacks
- Feed chute in accordance with the safety regulations
- Doubling of compression through brake slide with adjustable brake
- Full signal via adjustable limit switch



Empty sack compactor in EX-protected design, mobile



Empty sack compactor with automatic brake slide relief



BSV 800 with drop chute

## Big bag-compactor BSV 800

Constantly rising disposal costs for emptied big bags (disposable sacks) make a volume reduction in disposal unavoidable. The compact design of the EMDE BSV 800 big bag compactor allows it to be installed directly at the workplace. Annoying dust sources caused by the internal transport of emptied big bags to the disposal container can be prevented by decentralized installation in the immediate vicinity of the big bag emptying point. The feed can be connected to a filter via an aspiration nozzle to prevent dust from escaping and to ensure that the big bags are fed in low-dust.

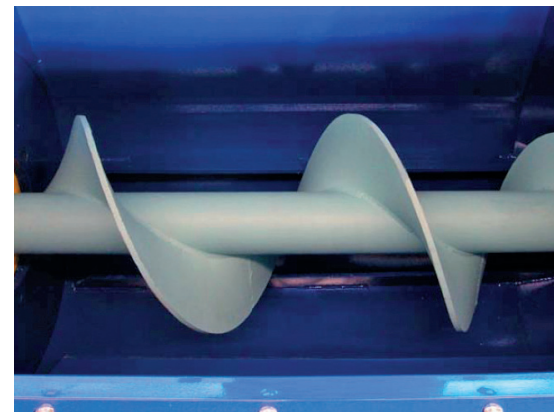
- Low-dust disposal of emptied big bags at the workplace
- Significant reduction in disposal costs
- Connection option to on-site aspiration
- Ergonomically optimized working height
- Personal protection in accordance with the machinery directive
- Mobile version for use at different workstations
- Matching disposable big bags for container disposal are included in the scope of delivery



BSV 800 - stationary



Mobile EMDE big bag compactor BSV 800



compressor screw in the BSV 800



Drum tipper with big bag emptying

## Drum emptying / container emptying

Bulk material are not only stored and transported in big bags and sacks. A large number of other containers such as drums, card drums, octabins, containers and others containers must be filled or safely emptied with low dust levels. EMDE supplies a range of innovative solutions for emptying your containers.

- Pneumatically or hydraulically operated lifting/tipping devices
- Dust-tight filling of drums, containers and similar containers
- Container emptying stations for swap containers
- Lifting/tipping devices for octabins and open containers
- Special solutions for lifting and swivel movements



Electric operated drum tipping device



Container emptying



Location Nassau an der Lahn

## Your system supplier for complex & customized solutions

As an innovative plant manufacturer, we develop tailor-made systems and components for conveying, dosing, mixing, filling and emptying bulk materials. We see it as our task to further develop your production concept with you – to implement it economically, future-proofed and networked. Intelligent detailed solutions and tried-and-tested designs are the result of many years of development which stands for system engineering that is welcome in all industries.

The most different properties of bulk material often require specially adapted solutions to ensure clean and calibrated emptying. Experienced design engineers and the complete in-house production of the systems, including system control and programming, are the prerequisites for a fast and customer-oriented overall project solution.



We understand bulk!

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