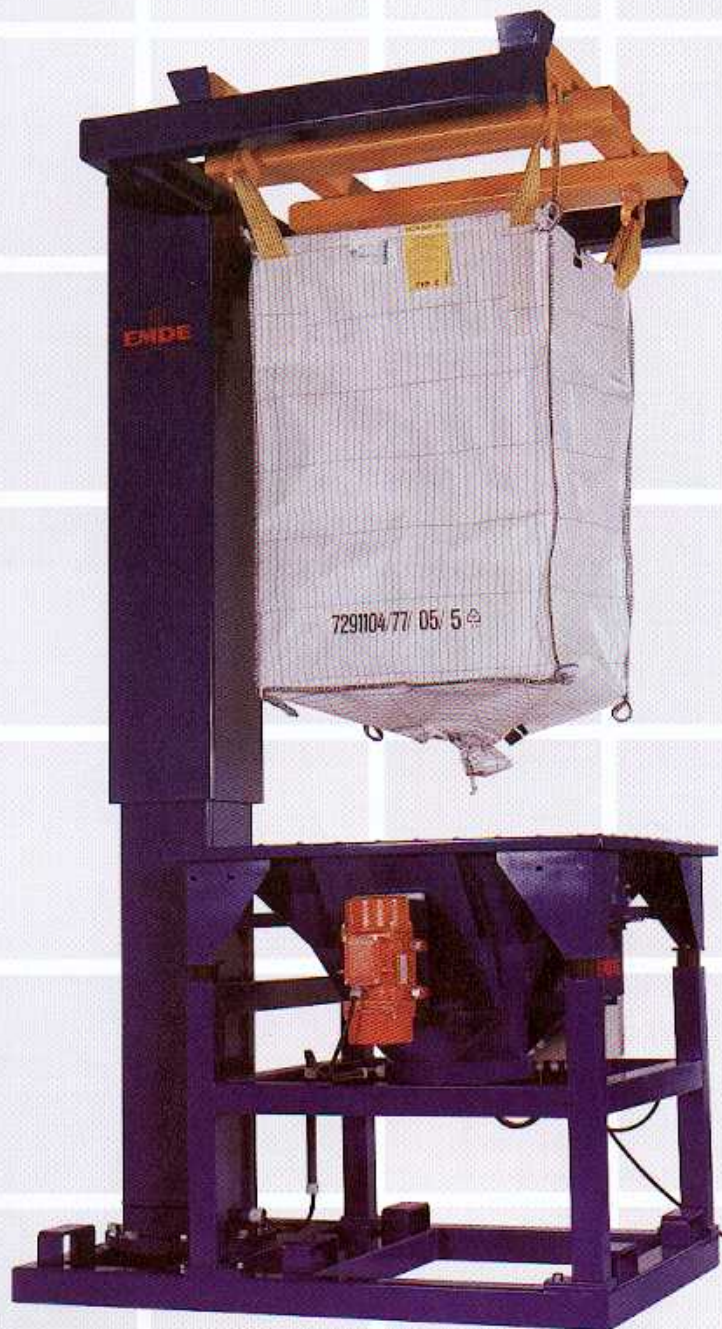


Handle tonnes
with ease



BIG-BAG DISCHARGE SYSTEMS

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EMDE INDUSTRIE-TECHNIK

GESELLSCHAFT FÜR RATIONALISIERUNG UND VERFAHRENSTECHNIK MBH

The modular system for discharge stations from EMDE offers the reliable solution for all emptying problems with big-bags. The system solutions are characterised by the following criteria:

- Safe handling of the heavy bags
- Dust-free discharge
- Simple construction for reliable operation
- Robust, low-maintenance design
- Discharge-promoting bag bottom shaping
- Universal application for all bag shapes and sizes



The modular design provides proven individual solutions to be combined to create an entire plant optimised to the task on hand. The dischargers are suitable for connection to all common conveyor systems or for the direct filling of silos and containers. For EMDE screw conveyors and the flexible EMDE-LIFT, we offer feed adapters with guaranteed product transfer.

For handling the bags, we produce handling gear for transport with a fork-lift truck or crane. Various stretching systems keep the big-bag in shape during the emptying process so that complete discharge is ensured.

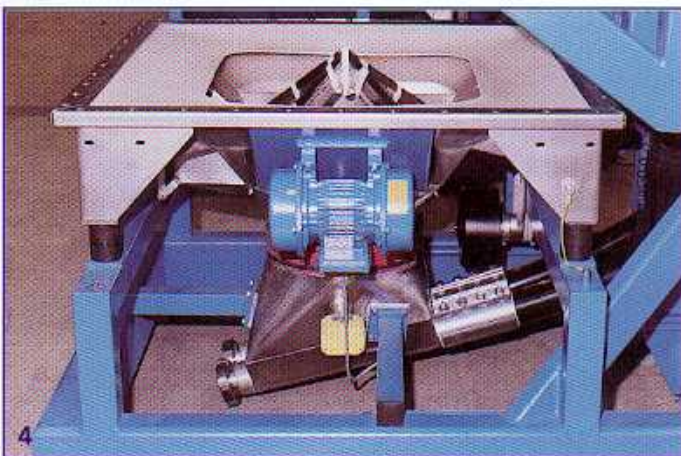
The EMDE big-bag discharge plants are available in 4 different designs:

- Simple emptying for non-dusty granulates **type BE 1000** with hopper. Very economically priced system.
- Discharger **type BE 1400** with connection nozzle for big-bag discharge.
- Standard discharger **type BE 1500** for maximum emptying capacity and reliable discharge even of materials with poor flowing properties.
- Discharger **type BE 1600** with docking system for maximum demands on cleanliness.



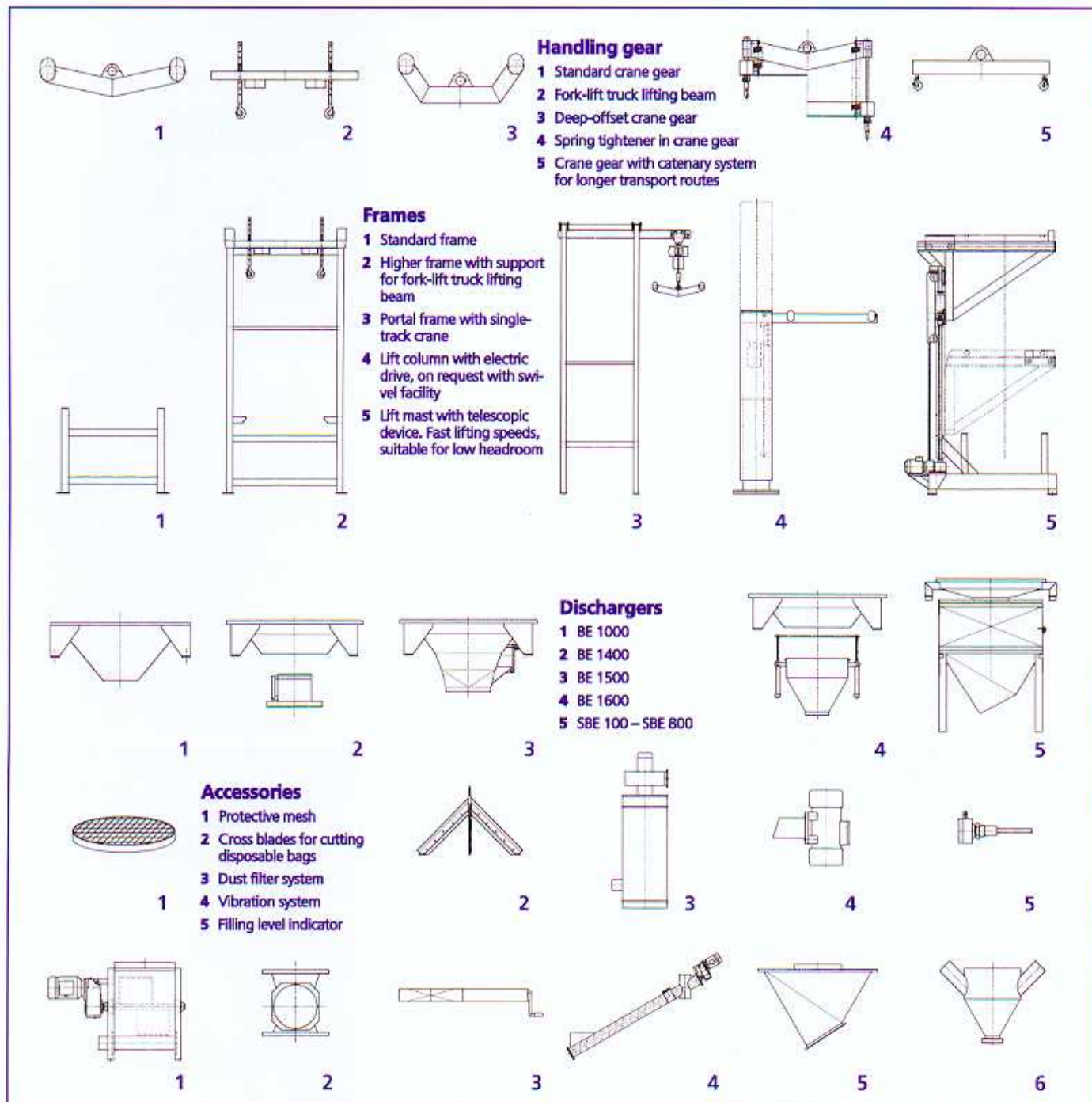
In all EMDE big-bag dischargers the bag is supported on the hopper or support frame. This important safety feature ensures that the operator does not open the discharge cord under a suspended load.

The supporting hopper used on all dischargers apart from the **type BE 1000** is designed so that it shapes the bag bottom into a streamlined hopper with steep walls and this prevents bridging in the discharge area of the bag.



This effect is improved even more in conjunction with the proven vibration discharge device. The vibration drive is designed for low frequency with high amplitude to prevent product compaction. The discharger is supported on vibration isolation mounts.

We have created a system for big-bag emptying



The illustrations show an extract from the EMDE discharger system which is constantly being further developed.

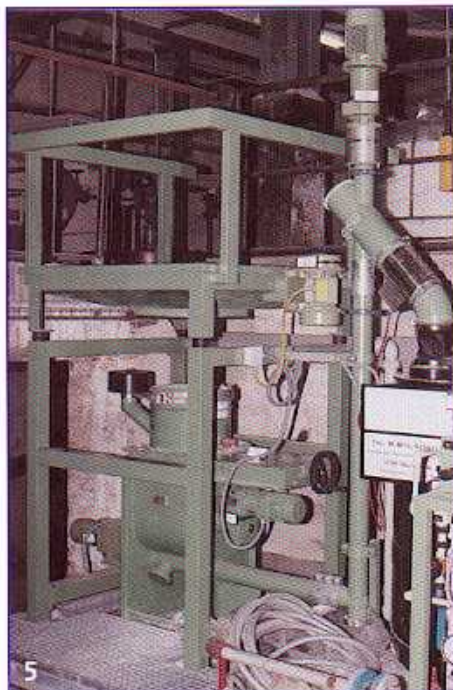
More system accessories, such as inliner clamps, inliner disposal facilities, screw holder on the frame, hopper en-

largement, centring aids, dust return system from the filter, aeration, inert gas purging, earthing system, weighing facility with automatic discharge dosing and many more are available.

EMDE-Big-Bag-discharger type BE 1400

The EMDE big-bag discharger type BE 1400 is used when only returnable bags with an outlet spout are to be emptied

and when the big-bag is to remain docked as a store for a lengthy period. It is equally suitable as a simple discharger



in the pharmaceutical sector as there is no contact between the outer bag and the product.



The outlet spout of the big-bag is fastened to the connection nozzle by means of a one-hand bag clamp or



EMDE inflatable tubular bag holders. After attachment of the outlet the cords of the outlet spout can be opened.

All discharge aids and loading facilities are available for the type BE 1400 as the discharger is produced with the module dimensions standardised for all units.

EMDE-Big-Bag discharger with lift column



The lift column serves to load the EMDE big-bag discharger without a fork-lift truck or crane. The bags can be transported with a hand pallet truck.

The system is particularly suitable for low headroom or on platforms inaccessible to fork-lift trucks. The lifting drive

does not require additional installation height.

The lift column is also suitable for stretching bags with a very long outlet and for setting the support height when the bag height is frequently changed.



EMDE-Big-Bag-discharger type BE 1500

The centrepiece of the proven EMDE big-bag discharger type BE 1500 is the supporting hopper. As a multi-functional unit, it combines the following features:

- Bag support to protect the operator
- Shaping of the bag bottom and outlet area for improved discharge
- Sealing against dust discharge with sealing diaphragm
- Elongation possibility for the discharge nozzle of the big-bag, therefore as a rule no additional mechanical bag stretching required.
- Material buffer in the hopper during the bag-changing time permits continuous discharge.



10. EMDE big-bag discharger type BE 1500 S with higher frame and fork-lift truck lifting beam
11. Discharge of large big-bags with low headroom in the hazardous zone 1 with the EMDE big-bag discharger type BE 1500 E.
12. Higher-powered vibration system on the type BE 1500 for discharging pieces of plastic which catch.

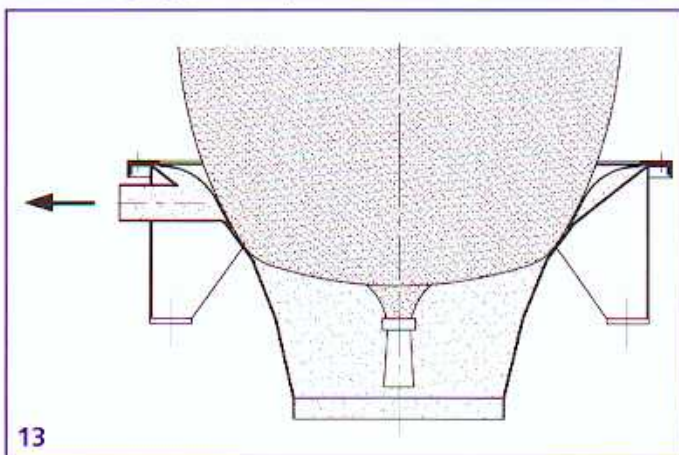
Function:

The full big-bag is deposited with a crane, fork-lift truck or the integrated lifting facility onto the supporting hopper. The bottom of the big-bag rests dust-tight against the sealing diaphragm and is introduced partially into its opening, coming into contact with the inclined hopper walls.

Between the sealing diaphragm and the hopper an annular channel is created which is connected to an aspiration unit by means of the side suction nozzle. The air displaced during discharge is extracted so that no dust escapes. The extraction unit removes the dust during bag-changing from the opening in the sealing diaphragm.

The discharge spout in returnable bags is opened via an operating door installed in the lower section of the hopper. The door is mounted in such a way that the end of the discharge spout is lower than the door and so no product escapes when the bag is opened. The operating door is also effectively subjected to extraction via the side extraction nozzle.

The discharge tube of the big-bag can hang freely into the hopper during the emptying process. Subsequent stretching is unnecessary with this system.



The hopper is specially shaped so that bridge-forming bulk products with poor flow properties can be reliably discharged. To this end the vibration bottom with an electric or pneumatic vibrator suitable for loosening serves as an effective discharge aid. This discharge system is designed as a wear-free system without bearings, joints or guides and is therefore particularly suitable for arduous and continuous operations.

Cleaning when the product is changed and to comply with hygiene requirements is very easy as there are no dead corners. This highlights the suitability as a universal unit for deployment in all sectors, whether chemicals or food, recycling or building materials.

EMDE big-bag discharger type BE 1600

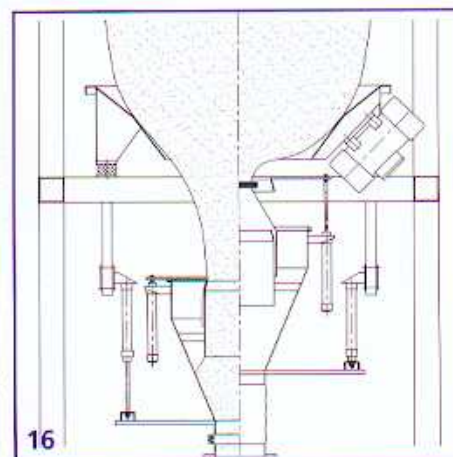
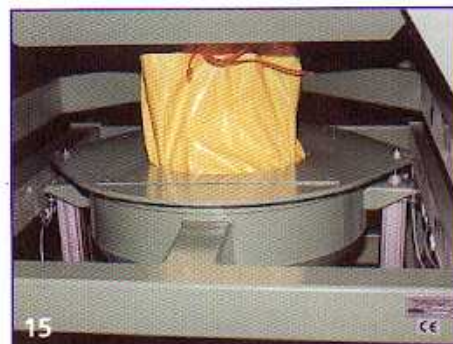


The docking system of the EMDE big-bag discharger type BE 1600 ensures cleanliness during the emptying of big-bags. It is used particularly in the food and pharmaceutical sectors but also in the chemical industry.

The discharge tube of the big-bag is pulled over the actual product nozzle and clamped pneumatically or mechanically by the pressure plate with a seal. The dust protection jacket is closed at the same time by the pressure plate.

The dust protection jacket is either connected to a dust return system into the product collector or as a closed system with only the extraction facility.

As an optional accessory, we recommend the discharge stretcher which pulls the entire docking facility downwards with adjustable force and thus stretches the discharge of the big-bag so that it is free of folds. The discharging behaviour is improved.



Combined big-bag discharger



The EMDE big-bag discharger types SBE 100 to SBE 800 are a combination of the proven EMDE bag discharger and the EMDE big-bag discharger.

The standard bags are fed via the discharge flap which is closed tight for emptying the big-bag. Both disposable

and returnable bags can be fed. The system accessories also fit this discharger.



20. EMDE big-bag discharger type BE 1000 with integrated loosening activator and connection for a flexible screw conveyor EMDE-LIFT.

EMDE big-bag discharger type BE 1000

We offer this discharger as a very economically priced single unit for emptying non-dusty products. The feed hopper does not have a sealing diaphragm or a dust extractor.

However, no compromises are made in terms of safety and with this system the bag weight is also reliably held by the supporting frame. The comprehensive accessories also fit this discharger.



21. EMDE big-bag discharger type BE 1000 S with weighing system for precise discharge dosing. The weigher has a resolution of 100g over a 1500 kg weighing range. Larger batches are also possible owing to the special software with remainder memory.

Application examples

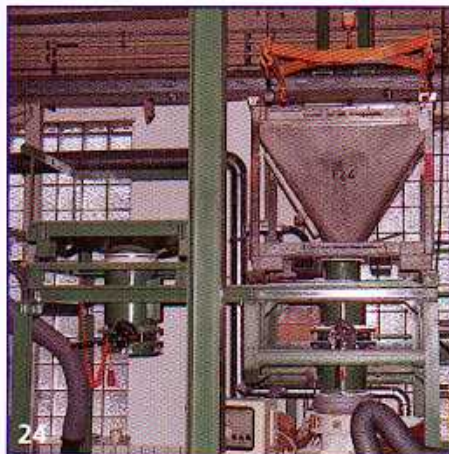


22. EMDE big-bag discharger type BE 1500 S being loaded with an electric fork-lift truck.



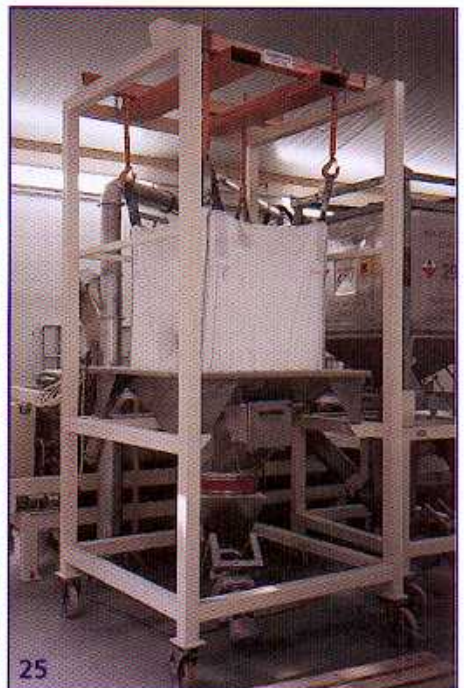
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23. Mobile discharge station with flexible EMDE-LIFT.



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24. Combined discharge for big-bags and containers. For container emptying, the big-bag discharger is pushed sideways into a parking position.

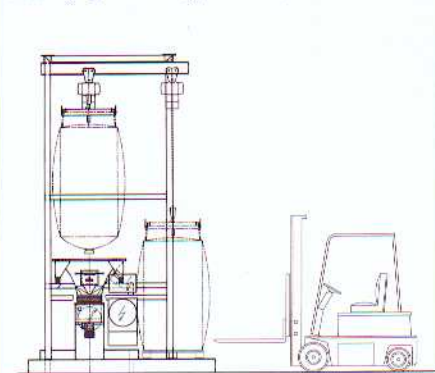


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25. EMDE big-bag discharger type BE 1500 S with EMDE tubular screw conveyor type MDV 160 for dosing into an EMDE double screw mixer.

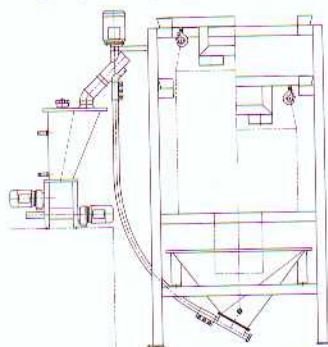
System combinations in practical applications

Discharging and dosing plant with portal crane



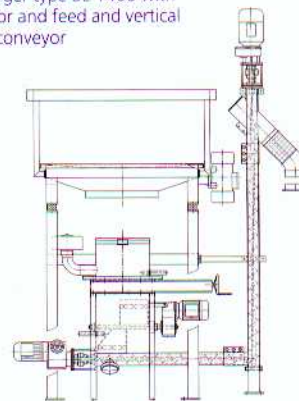
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EMDE big-bag discharger type BE 1000 S

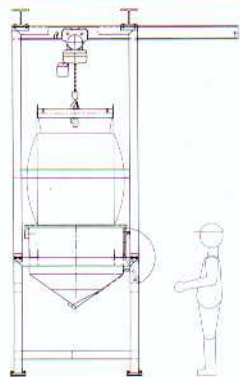


27 Dosing screw type DS 11 and flexible screw conveyor EMDE-LIFT

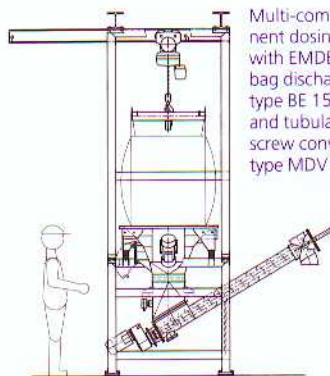
Discharger type BE 1400 with activator and feed and vertical screw conveyor



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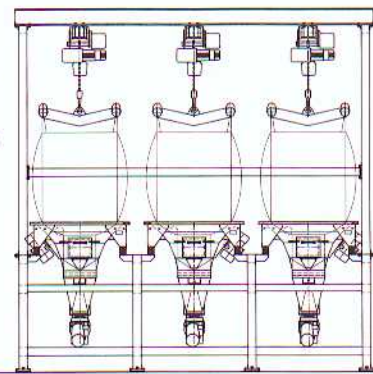


29 EMDE big-bag discharger type BE 1000 P



Multi-component dosing with EMDE big-bag dischargers type BE 1500 P and tubular screw conveyors type MDV 160

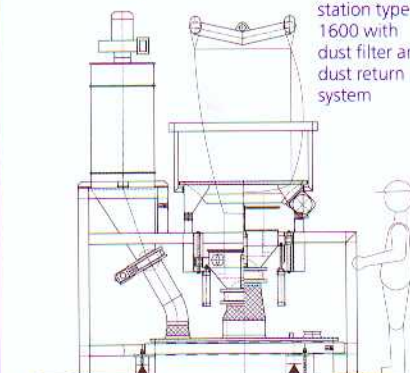
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Combined big-bag discharger type SBE 200 S

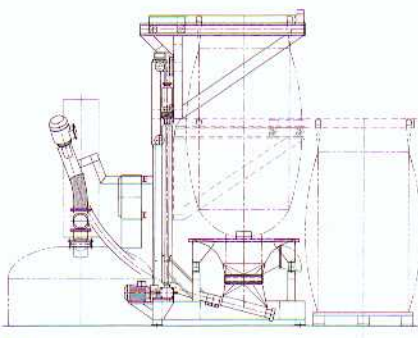
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Discharging station type BE 1600 with dust filter and dust return system

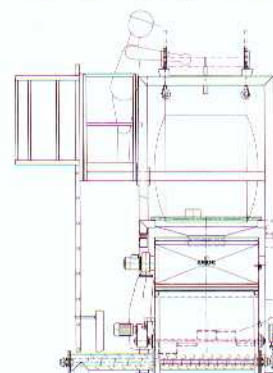


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Dosing plant with EMDE big-bag discharger type BE 1500 E and EMDE-LIFT



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