

Big Bag filling stations

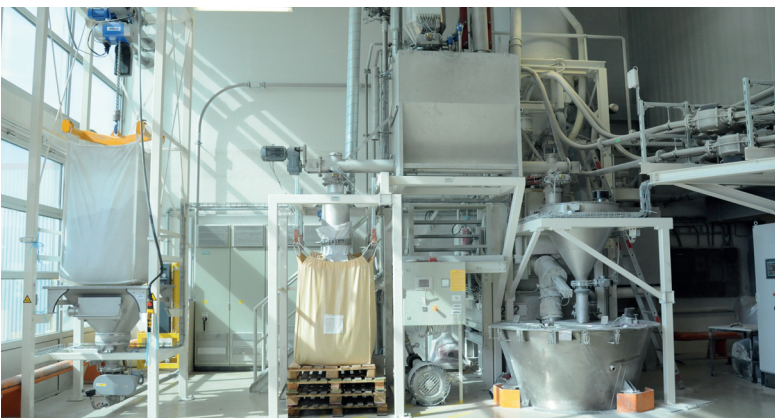


Compact rail moving filling system with pallet magazine for product filling underneath of silos

Worldwide project experience

More and more attention is focused worldwide on the safe and low dust filling of Big Bags. Even mass products are now transported in Big Bags because the handling of metered smaller consumption volumes is often significantly easier at the consumer. The applications, the required filling performances as well as the requirements for the automation level of the system are therefore versatile.

- Need conforming and product specific concept development
- Short term project engineering and the presentation a quotation
- Complete in-house production of all system components
- Installation, commissioning and maintenance worldwide



Volumetric filling station with maximum sensor in the filling



Project meeting in China



Dual Big Bag fillingsystem with pre-weighing

Highest degree of automation

In addition to filling stations that work volumetric - equipped with a fill level sensor in the filling head - EMDE offers mainly filling systems with an integrated weighing technology as an independent weighing system. Normally, the product will be metered and weighed directly into the Big Bag. Afterwards, the filling adapter can be twisted and can be closed with a plastic clip. The Big Bags with inliner can be evacuated and can be automatically closed airtight using welding tongs.

- Volumetric and gravimetric filling
- Automatic closing system
- Pneumatically actuated safety folding hook
- Movable rear hooks
- Dust tight filling adapter connection through inflation hose with inside pressure sensor
inflation hose control



Automatic closing system with clip



Movable rear hooks

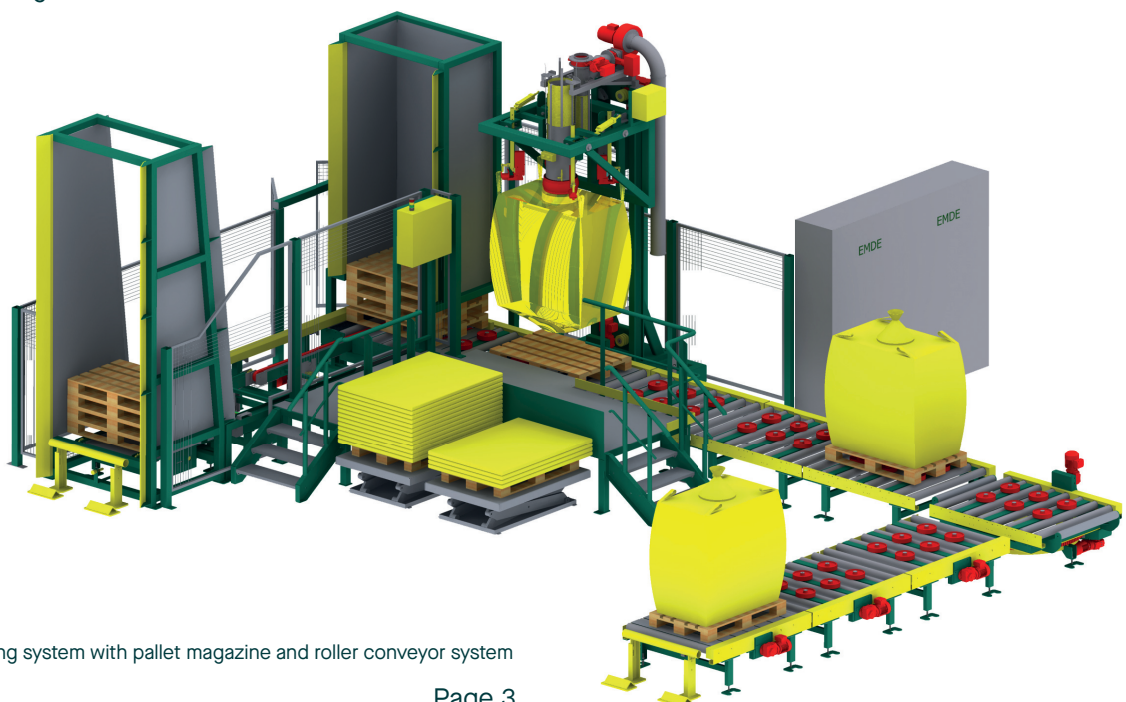


Dual filling system in final assembly for FAT test

Self-supporting filling

A self-supporting filling of Big Bags is the prerequisite for a safe further transport or the storage of Big Bags. For this purpose, the filling stations are equipped with an effectively working vibration frame, which guarantees fast compacting of the product during the filling process. Transport as well as warehouse costs will be reduced by the above. Big Bags with liners will be inflated by a bag inflation device with a fan or by a safety valve with inert gas to ensure that the inliner is attached to the Big Bag during the filling.

- Effective product compacting during the filling process
 - Self-supporting further transport of Big Bags on pallets
 - Complete utilization of the Big Bag fill volume
 - Smooth filling of Big Bags with liner by means of bag inflation device
- Bag inflation device




Model of a filling system with pallet magazine and roller conveyor system



Dual filling system in the food industry

Ergonomics and operator protection

Systems that are planned based on ergonomic principles will be accepted by the operator. In addition, all required measures are taken to permit a safe and failure-free working for the operators at the filling stations. This includes the safety related analysis of the products to be filled for possibly existing dust explosion risks as well as hazard assessments and the resulting protective measures in accordance with the machine directive.

- Operator friendly and safe working
-  - Systems in accordance with directive 94/9 EG for the dust and gas Ex area
- Total concept incl. protective fences and light barriers at possible accesses
- Ergonomically designed work places and control platforms
- Movable access step to hook the loops or to dock the filling adapter



Sack and Big Bag filling



Combined Big Bag-/Octabin filling station



Big Bag filling system with release position for pallet stack and pallet magazine in final assembly

... differences in the details

The summation of the very interesting developments make EMDE systems to a leading product in the market. This includes:

- Vibration-free decoupling of the vibration frame from the weighing frame
- Lift system for filling head with integrated electrical chain hoist
- Chain rupture monitoring and fall protection device for hoisting frame
- Automatic closing device with clip system
- Pneumatically actuated hooks with safeguard in case of a pressure drop



Mobile big Bag filling station with pipe forks



Swivel hook for Big Bag removal through fork lift prongs



Paperboard sheet dispenser for moisture protection between pallet and Big Bag

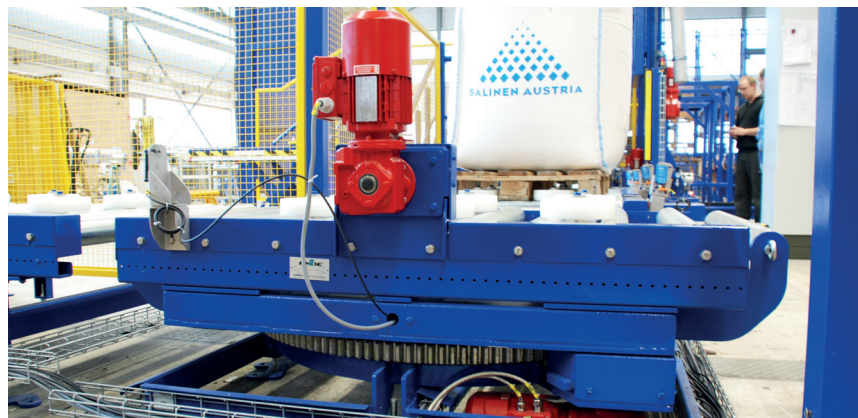
Peripheral components

These components are to a large extent manufactured in-house and installed in the total system. We assume the process related responsibility for the overall concept. The inclusion in a more complex system concept requires the use of supplemental components such as:

- Conveyor system for pallets
- Pallet magazine
- Weighing and metering system
- Sieve system and magnet separator
- Dispenser for paper board sheets



Pallet magazine



Pallet conveyor system with rotary table



High performance filling system for up to 60 Big Bags per hour

Your system supplier for complex solutions

Intelligent detailed solutions and proven designs, which are the result of long term developments, represent systems engineering that is welcome in all industries.

The different bulk material characteristics require often specially adapted solutions to guarantee a clean and calibration-conforming filling. Experienced designers and the complete in-house manufacturing up to the system control and programming are the prerequisites for a fast and customer oriented total solution for a project.

- Robust design for the industrial continuous operation
- Economic solutions for each need
- Flexible system configurations based on standard solutions

EMDE
Automation

We understand bulk!

Koppelheck ■ D-56377 Nassau
Phone +49 (0) 26 04 - 97 03 - 0

