



Bag Handling

Empty chemicals, building materials and food in a low-dust, safe and clean manner



Manual bag emptying

Automated bag emptying

Glovebox

Empty bag compressor

For powders and granulates: custom designed systems for perfectly adapted bag handling.

- > Various materials
- > Integrated filter technology
- > Safe and user-friendly operation
- > Explosion protection (ATEX)
- > Conveying and dosing equipment
- > Weighing
- > Loosening equipment
- > Efficient bag disposal

Complete solutions from a single source

We will also assist you beyond
system integration



Bag emptying: bulk materials safely in the process

IB Verfahrens- und Anlagentechnik develops and builds manual and fully automatic emptying systems for supplying manufacturing processes with raw materials delivered in bags. One of our strengths is that we tailor our solutions individually to the specifics of an application – with the aim of commissioning a perfectly designed solution for bag handling. Against this background, the systems have a modular design and can be easily adapted accordingly. The solutions are also designed for maximum availability, durability and product safety.

The people behind IB Verfahrenstechnik are a team of experienced engineers and technicians with a passion for bulk materials. We have several decades of experience in conveying technology and have always valued personal contact with our customers right from the very outset – with the aim of designing tailor-made technology from a modular system. The registered office of IB Verfahrens- und Anlagentechnik GmbH & Co. KG is Lage-Heiden in the East Westphalia-Lippe technology belt. If you would like to know more about bulk solids technology and the conveying technology solutions from IB Verfahrens- und Anlagentechnik: please call or write to us.

Manual bag emptying – User-friendly, ergonomic, safe

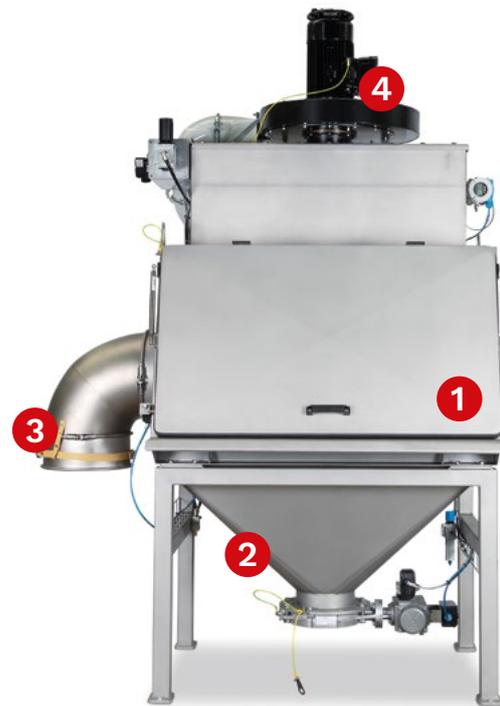
IB Verfahrens- und Anlagentechnik has developed stations that are primarily based on ergonomic aspects for manually emptying bagged goods. The manual emptying station facilitates fatigue-free working, among other things with a large support table, an insertion grid and a design that is also easy to clean. In addition, the modular design paves the way for integrating the station into the production environment in a tailor-made manner and taking into account the wishes of the employees.

- 1 Housing**
with operating flap, grid shelf and contact switch

- 2 Product hopper**
with level indicator and discharge flap

- 3 Empty bag ejector**
with bag clamp for disposal container

- 4 Top-mounted filter**
with fan and pneumatic cleaning



SEG with filter (ATEX)

Features of the bag emptying devices

- > Discharge optimisation e.g. loosening stirrer, beater, vibrator
- > Weighing of the product with load cells and weighing electronics
- > Slicing blade with chain and sheath
- > Output via various dosing devices
- > Integrated control system with connection to PLC
- > Customer-specific adaptations
- > Connection to external dedusting unit
- > Empty bag ejector with bag clamp
- > Top-mounted filter with pneumatic cleaning and fan
- > Integrated or mobile empty bag compressor
- > Mobile version with lockable rollers
- > Working and operating platforms
- > ATEX version
- > FDA/Food compliant in compliance with EC 1935/2004
- > Combination with Big Bag emptying unit
- > Rental devices

Bag emptying devices – Safe, low-dust and contamination-free emptying of bags

Our manual bag emptying devices can be connected to different dosing and conveying devices. In terms of material design, stainless steel or other materials are used in addition to normal steel to ensure that the station meets the requirements of the most diverse industries.



SEG as basic version



SEG with screw conveyor, operating platform and filter



Weighing of product sample



Loosening stirrer



Safety filter / Filter stage 2



Directly connected empty bag compressor

Automated bag emptying – Handles 600 bags per hour

The production process's appetite for powders and granulates can be so great that new paper or plastic bags are constantly being opened and emptied. With the automated bag emptying station from IB Verfahrens- und Anlagentechnik up to 600 bags per hour can be processed automatically. Complete emptying is carried out with minimal dust and the material is handled in a gentle manner. The bags are therefore not torn open, but cut open at the sides by circular blades. Only one person is needed to operate the machine.

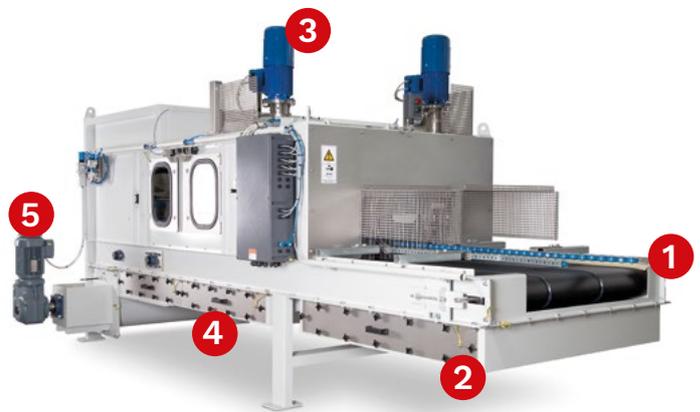
- 1 Bag feed**
with bag centring

- 2 Dust collection trays**
for easy cleaning of the system

- 3 Drives for circular blades**
with safety discs for process monitoring

- 4 Product discharge**
with system connection

- 5 Drive**
for empty bag compactor screw

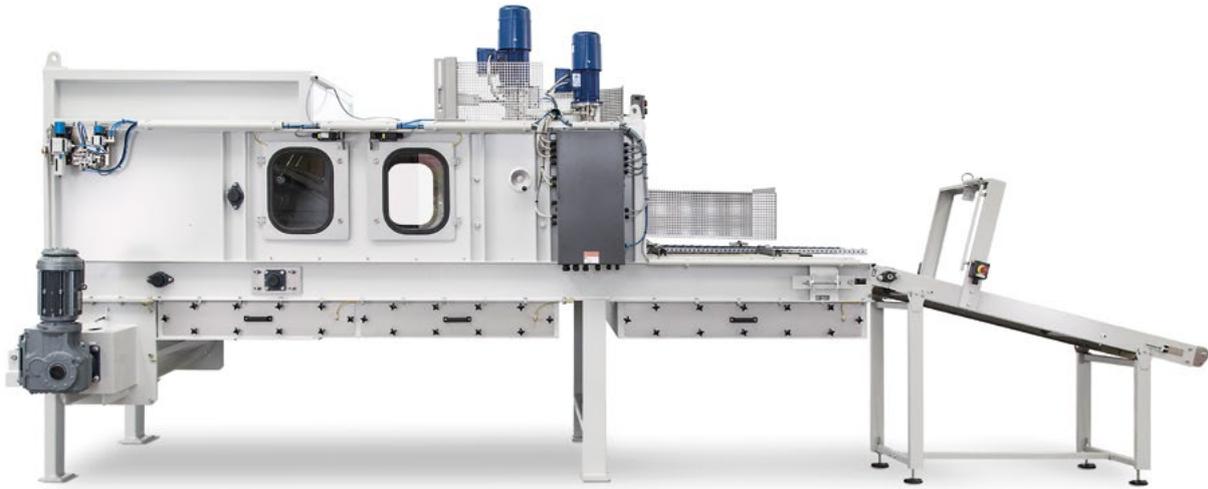


Features of the bag emptying machines

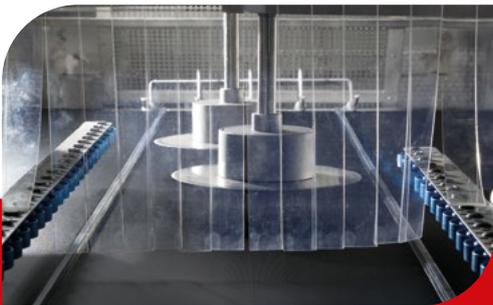
- > Loading and operation by just one person
- > For powders and granulates with good flow properties
- > Bag sizes up to max. 800 mm length and 400 mm width
- > Bags made of paper, plastic film and combinations
- > Integrated control system with connection to PLC
- > Customer-specific adaptations
- > Top-mounted filter with pneumatic cleaning and fan
- > Connection to external dedusting unit
- > Permanently installed empty bag compactor
- > Working and operating platforms
- > Depalletising robot, pallet lifting table, vacuum lifter
- > ATEX version

Bag emptying machines - Efficient and ergonomic

The combination with roller conveyors, pallet feeders, lifting tables or vacuum bag lifters makes work efficient and above all ergonomic. Moreover, bag feeding can also be fully automated – then in combination with a robot for depalletising.



approx. 5,000 mm



Bag inlet with dust protection curtain



3-sided cutting of the bag



Gripping and opening out of the opened bag



Bag emptying via discharge rollers

Glovebox – Working behind protective glass

Sensitising products that are hazardous to health require maximum occupational safety. In the “Glovebox”, the paper or plastic bag disappears in an enclosed space with glass pane. To open it, the employee reaches into gauntlet gloves, which are tightly connected to the “glovebox”. The bags are fed via a roller conveyor arranged on the side. This design provides maximum ergonomics even when handling reactive and health critical products.

- 1** **Roller conveyor**
for comfortable bag support

- 2** **Flap**
with dust curtain

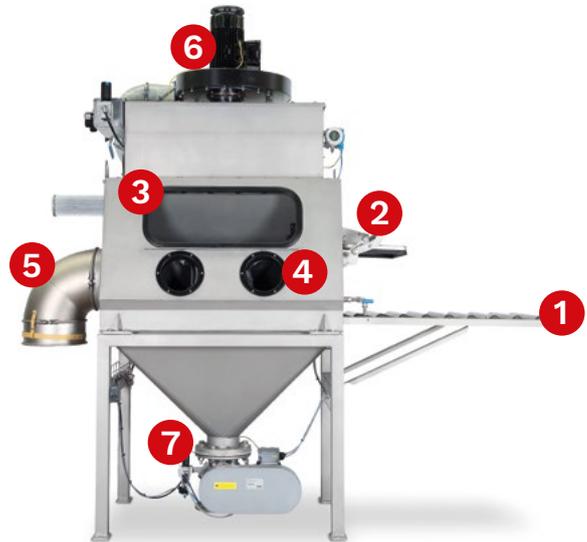
- 3** **Housing**
with large inspection glass

- 4** **Operation**
with glovebox gloves

- 5** **Dust-free ejection**
of empty bags

- 6** **Top-mounted and HEPA filters**
with fan (ATEX)

- 7** **Hopper**
with a variety of connections and shut-off / dosing equipment



Features of glovebox

- > Integrated control system with connection to PLC
- > Customer-specific adaptations
- > Top-mounted filter with pneumatic cleaning and fan
- > Connection to external dedusting unit
- > Glovebox gloves made of various materials
- > Integrated or mobile empty bag compressor
- > Working and operating platforms
- > Lighting
- > FDA/Food compliant in compliance with EC 1935/2004
- > ATEX version

Empty bag compactor – Space-saving disposal



Where does the sack go when it's empty? If the paper or plastic packaging is compacted according to type, it can be economically disposed of or recycled.

The empty bag compactor from IB Verfahrens- und Anlagentechnik ensures that the empty bags quickly run out of air – without whirling up much dust. The sturdy unit consists of a chamber with an overhead mounted screw helix. A power and compressed air connection is sufficient for operation. The empty bag compactor is equipped with rollers for mobile use.

Screw housing 1
made of steel/ stainless steel

Flap with contact switch 2
for automatic switch-off and dedusting

Screw drive 3
4 kW gear motor

Control box 4
for simple operation

Rollers 5
with holding brake

Dedusting 6
with integrated filter and fan (ATEX)

Connection nozzle 7
with loop suspension and bag buckle and tamper guard

Features of the empty bag compactor

- > Protection of your employees from hazardous dust
- > Reduced waste disposal costs
- > Capacity of 5 – 10 bags
- > Low-dust disposal in film tube
- > Maximum compaction
- > Design in steel and stainless steel
- > ATEX version
- > Simple and safe operation (Plug & play)
- > Mobile and stationary version
- > Integrated or on-site dedusting
- > Rental devices
- > Special designs possible

Support services for perfect bag handling

Efficiency, ergonomics and product safety are three decisive criteria in bag handling. With all the demands placed on standardised solutions for the supply of bulk materials, individual adaptation of the technology to the requirements on site is also important. You can expect us to design solutions from a modular construction kit that perfectly match your production and intralogistics needs. As a result, we are your system partner for the entire bulk material handling process. Beyond the technology itself, what counts most is the know-how of our employees. We combine this in services for planning, conception and seamless system integration right into the automation technology of our customers.



Custom system solutions for effective bag handling

Rapid and reliable

Any questions?
We will be happy to help

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Systemized bulk handling.

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