



Tetra Pak® Bag Tipping Station

Ergonomic and safe discharging of 25 / 50 kg bags



Application

Tetra Pak® Bag Tipping Station is designed to efficiently discharge 25-50 kg bags of powder. The sanitary design makes it suitable for all food powder discharge applications, including dairy and nutritional products. Thanks to the wide opening, a wide range of bag dimensions can be used.

Highlights

- High throughput
- Modularity
- Eliminates heavy lifting (with automatic slitter option)
- Low operational cost*
- Hygienic design
- Short cleaning times*

*In comparison to previous versions of bag tipping stations.

Working principle

Tetra Pak® Bag Tipping Station is equipped with a large opening to discharge the bag easily. The machine operates as follows:

- Bags arrive either on a belt conveyor (preferably on one side of the machine) or on a pallet placed on a scissor lift.
- The operator picks up the bag at the correct height and slides it to the ergonomic table of the tipping station.
- The bag is opened / cut lengthwise and then pushed down to the grid.
- The grid is much lower than the table to reduce the height operator must lift the bag to properly empty it.
- If requested, the discharged powder passes through a large vibrating screen and a vibrating magnet, which is attached beneath the sifter.
- The powder can go vertically to any kind of receiver or feed a vacuum conveying line at the same floor when using a specific compact injector.
- The waste bag is disposed in a bag compactor or waste bin.

The machine runs as follows:

- The operator opens the door.
- The fan and the vibrating screen motor start automatically.
- The reverse air jet filter sequence starts, based on a timer for filter cleaning sequences.
- Motors stop when the door is closed.

Foreign body control:

- The wide opening makes it possible to visually control the vibrating screen.
- For detailed inspection of cleaning, the screen can be removed from the front of the machine by removing a large flexible connection above it.
- The magnet can easily be removed by releasing the inflatable seal (7 kg pieces equipped with two handles).

The control cabinet with Lockout Tagout (LOTO) is situated on the side / rear of the machine.

Basic unit

Tetra Pak® Bag Tipping Station is offered with reverse air jet filter and supporting stainless steel frame.

Before delivery, all units are pre-assembled, frame-mounted and factory-tested. This assures easy installation.

- All features are accessible from floor level.
- Compliant with food safety and machine safety regulations.
- Compliant with dust explosion regulations.

Main components

- Bag tipping station
- Filter
- Frame

Options

- Automatic bag tilter / splitter
- Vibrating sifter
- Magnet
- Vacuum line injector
- Offset filter / fan
- High efficiency static filter
- On demand: adaptation to two operators

Upstream and downstream modules can be supplied on demand. Every module is upgraded and retrofitted at a later stage.

Capacity

Depending on operator.

Average 2500 kg/h to 3000 kg/h.

Up to 6,000 kg/h with automatic bag tilter / splitter.

Consumption data

ELECTRICAL POWER

2.5 kW depending on selection

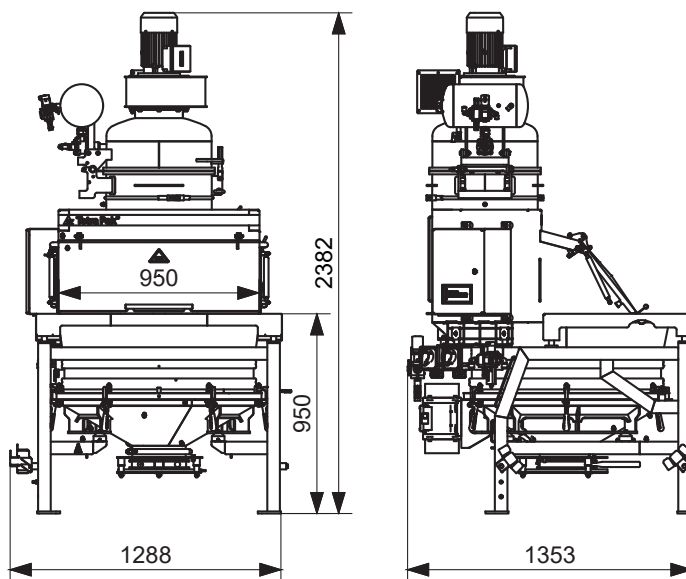
400 V, 50 Hz

COMPRESSED AIR

Depending on selection max:

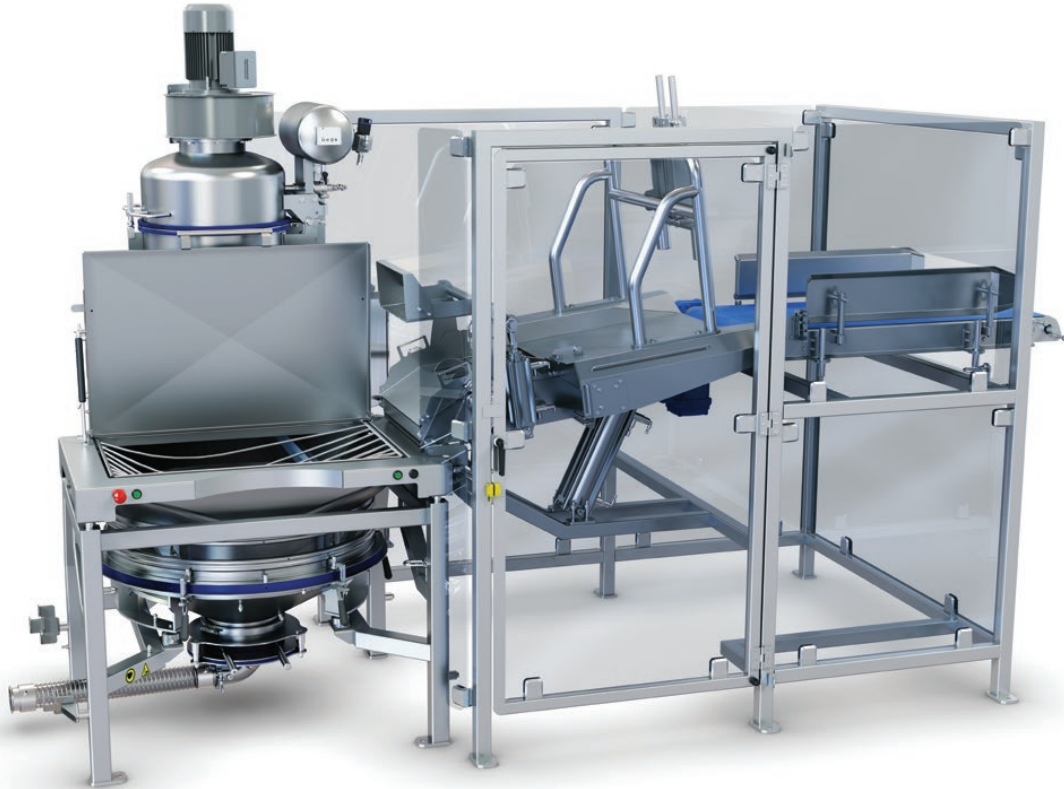
15 NI/h at 600 kPa (6 bar)

Layout



Automatic Bag Tilter / Slitter (Option)

Automatic bag opening station for 25 / 50 kg bags.



Application

The automatic bag tilter / slitter is designed to efficiently discharge 25 / 50 kg bags of powder.

Highlights

- Eliminates heavy lifting (bag discharging made easy)
- Increased capacity compared to manual operation
- Modularity
- Low operational cost
- Hygienic design
- Short cleaning times*

*In comparison to previous versions of automatic bag tilters / slitters.

Working principle

The automatic bag tilter / slitter automatically cuts the bag and brings it to the discharging position. It effectively eliminates the heavy lifting normally involved in bag handling.

The automatic bag cutting system comprises the following steps:

- Acceleration belt for properly engaging the bag in the cutting section.
- Tilting module for bringing the bag to the discharging location.
- Slitter to cut open the bag layers.
- Discharging of the powder.
- Sieving of powder before it enters the process.
- Magnet and injector, depending on configuration.
- For high hygiene applications, the outer paper bag will be removed intact and ergonomically prior to entering the station, so that only the plastic inner bag enters the hygiene area.

One single operator can continuously handle up to four bags per minute.

The automatic bag splitter guarantees a clean bag opening while removing the need to manipulate hand-knives.

The dual start button assures that hands are kept away from the automated bag cutters, thereby enhancing personnel safety.

Environment stays clean thanks to an efficient, integrated dust extraction system.

Powder losses are minimised as the bag opening is optimised to prevent retention.

In high hygiene applications, the separated outer paper bag and inner plastic liner can be recycled for efficient waste management (in locations where adequate recycling infrastructures are in place).

The whole system is modular, which allows for many different configurations – from a standalone unit to complete solutions. Upgrades or additional modules can be added at a later stage. The bag tipping station can be upgraded with bag depalletisation and paper and plastic waste evacuation to make the entire system fully automated to increase throughput and reduce labour costs.

Main components

- Bag splitter and tilter
- Acceleration conveyor
- Safety fences
- Pneumatic Control Panel with Lockout Tagout (LOTO)

Options

- Bag splitter and tilter equipped with retractable blades and bag holder
- Bag tilter and holder (without splitter)
- 50 kg bags handling

Layout

