



# BIG-BAG

DISCHARGING SYSTEMS

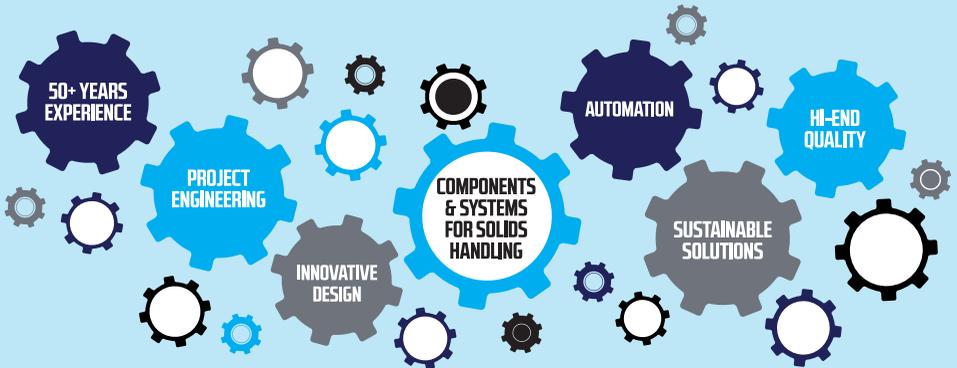


# WHO WE ARE

TBMA are specialists in the design and supply of components and systems for bulk solids handling. Our extensive range of high-quality processing equipment is suitable for handling powders and granules with proven reliability in practice in a variety of processing industries.

The highly qualified and experienced TBMA staff are well able to translate your requirements into the right execution and application of our components and systems. We also offer the design and execution of complete projects, thus providing you with an efficient, reliable and sustainable solution for your process.

## *Solutions beyond bulk handling*



# ● BIG-BAG DISCHARGING SYSTEMS

Transport and delivery of raw materials is increasingly being carried out using FIBC's (Flexible Intermediate Bulk Containers), also known as big-bags. For efficient discharging, we offer sophisticated systems to optimally utilise the benefits of these bags.

## **DUST-FREE, EFFICIENT AND HYGIENIC**

TBMA big-bag discharging systems are designed for trouble-free discharging of various products from different types of big-bags. Dust formation, product loss and contamination are thus prevented. Products can vary from free to poor-flowing. Our big-bag discharging systems are suitable for processing single or multi-trip bags, with or without a plastic inner liner. Discharge takes place in, for example, a hopper, screw, rotary valve and/or pneumatic conveying system.

## **MODULAR CONCEPT**

The TBMA big-bag discharging systems consist of a simple but very clever and flexible modular concept in which the standard models can be expanded with various options. This allows us to easily meet customer-specific requirements regarding product, bag type, working conditions, capacity and budget.

## **CUSTOMISATION**

Our big-bag discharging systems can also be custom-engineered according to your wishes. These special versions can be stationary or mobile and are easily incorporated into pneumatic conveying, weighing and dosing systems or bulk truck loading installations. Several unique options have been designed for value added logistics applications or the safe and hygienic release of foodstuffs or toxic products.



## IN BRIEF

- Suitable for almost all big-bags from 500 to 1600 kg
- Suitable for almost all free to poor-flowing products
- Discharge capacity depending on buffer/conveying capacity
- Dust-free release due to a tight-closed dust membrane
- Dust-free release by clamping hopper for big-bags with spout
- Discharging with accurate weighing (optionally stamped and certified)
- Sanitary high-care execution according to EHEDG guidelines
- Custom-engineered solutions

## APPLICATIONS



# BIG-BAG DISCHARGING SOLUTIONS

## BASIC | ECONOMICAL SOLUTION

The basic system for big-bag discharging can be used in combination with an overhead crane or forklift. The system consists of a hopper with a supporting frame and can be extended with ancillary equipment. Activation is done by a vibratory motor on the hopper. The discharging capacity is approx. 10-20 bags per hour.

These big-bag discharging systems are suitable for processing single or multi-trip bags, with or without a plastic inner liner. Discharge takes place in, for example, a hopper, screw, rotary valve and/or pneumatic conveying system.



## FORKLIFT | HIGH-CAPACITY SOLUTION

Big-bag discharging systems for forklift loading are designed to use a forklift for hanging big-bags in a discharging frame. The system consists of a special frame to hang a big-bag by means of a lifting yoke and can be expanded with additional equipment.

Activation is done by a vibratory motor on the hopper. The discharging capacity is approx. 20 bags per hour, partly depending on the (exclusive) availability of a forklift.

These big-bag discharging systems are suitable for processing single or multi-trip bags, with or without a plastic inner liner. Discharge takes place in, for example, a hopper, screw, rotary valve and/or pneumatic conveying system.

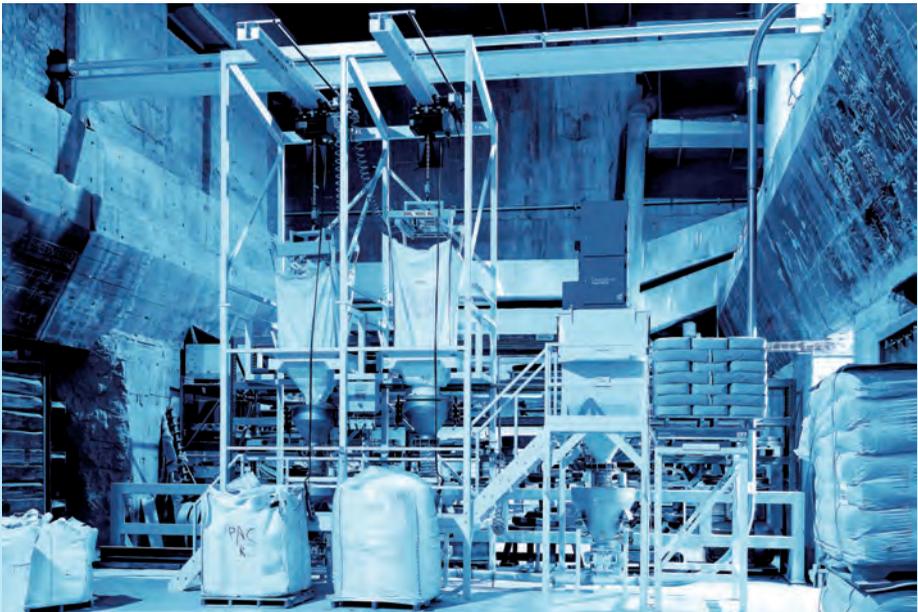


## GANTRY | STAND-ALONE SOLUTION

The Gantry big-bag discharging systems with integrated crane loading hoist are designed to work locally and autonomously. The system consists of a steel structure with gantry and hoisting device to lift and process the bags and can be extended with ancillary equipment.

Activation is done by a vibratory motor on the hopper. The discharging capacity is approx. 10 bags per hour.

These big-bag discharging systems are suitable for processing single or multi-trip bags, with or without a plastic inner liner. Discharge takes place in, for example, a hopper, screw, rotary valve and/or pneumatic conveying system.



## SPECIALS | BIG-BAG TO BULK SOLUTION

For loading bulk trucks, we offer special, flexible big-bag discharging systems capable of filling a 23t truck within 1,5 hour. To accomplish this, we discharge simultaneously on two positions in the manholes of the bulk truck.

When loading powdered products, loading chutes equipped with a filter installation ensure a dust-free process. Sieves can be added optionally. For highly polluting products, such as carbon black or TiO<sub>2</sub>, we offer a solution to adequately remove and dispose the inner liner in order to limit contamination of the environment to a minimum.



## MOBILE | FLEXIBLE SOLUTION

Mobile big-bag discharging systems are designed as a flexible and smart solution to accommodate multiple floor silos. These systems are often used in animal feed applications. The system consists of a mobile steel structure that supports the hopper and optional ancillary equipment, e.g. a filter unit. The hoppers are provided with a docking system for a dust-free connection to the floor silo.

These big-bag discharging systems are suitable for processing single or multi-trip bags, with or without a plastic inner liner. Discharge usually takes place in a floor silo.



Mobile system with cutting device for filling floor silos



Mobile system with removable bag dumping lid and integrated dust filter for filling floor silos

## HIGH-CARE EXECUTION | SANITARY SOLUTION

Stationary TBMA big-bag discharging systems are optionally available in sanitary, high-care execution for hygienic discharging of products such as baby and infant milk powder. Our high-care systems consist of a dedicated construction in stainless steel with 45° rotated and fully closed profiles with grinded welding  $R_a < 0,8$ . Liner tensioning and a liner retractor are optionally available.

These systems are suitable for processing single or multi-trip bags, with or without a plastic inner liner. Discharge takes place in, for example, a hopper, rotary valve and/or pneumatic conveying system.



OPTIONS	BASIC	FORKLIFT	GANTRY	SPECIALS	MOBILE
Hopper suitable for most types of big-bags	+	+	+	+	+
Bag dumping lid for bags (max 25 kg)	+/-	+/-	+/-	-	+/-
Vibrating motor on hopper for efficient product discharge	+	+	+	+	+
Rubber dust membrane for low-dust processing	+	+	+	+	+
3-bladed cutting knife for emptying single-trip bags	+	+	+	+	+
Clamping hopper for dust-free discharge of big-bags with or without inner liner	+	+	+	+	-
Vacuuming on clamping hopper to minimise dust emission	+	+	+	+	-
Glove box	+	+	+	+	-
Drop-stop for interim closure of the bag	+	+	+	-	-
Roll-up mechanism for empty inner liner	-	+	+	+	-
Integrated filter for dust-free working	+	+	+	+	+
High-care execution	+	+	+	+	-

+ suitable | +/- sometime used | - not applicable



**COMPONENTS**

**SYSTEMS**

**PROJECTS**

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