

BIG-BAG FILLING SYSTEMS

Bulk Handling and Processing Specialist



SAMPLING • DOSING • MIXING • STORAGE • CONVEYING • DEUSTING • DISCHARGING • FILLING • ENGINEERING



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FIBC filling- and weighing systems

Efficient filling and high accuracy weighing

TBMA offers you a modular range of Big-Bag filling systems from which the basic models can be equipped with several options to obtain a complete solution for filling and weighing Big-Bags. With the TBMA modular systems unstable, poorly filled and unstackable bags belong to the past. Careful consideration to filling quality and weighing accuracy have ensured the successful use of these filling machines world-wide.



Modular concept

The TBMA range is a simple but very flexible modular concept, always based on the main principle of hanging, stretching and vibrating the big-bags during filling. The modular set-up makes it possible to customise every system to suit all customer specifications regarding; type of product and bag, environmental aspects, system capacity and budget.

Capacities

TBMA Big-Bag filling systems can be supplied to handle weights ranging from 500 to 2000 kg. Filling capacities up to 70 bags per hour can be achieved depending on the type of product feed and system lay-out.



Model VB2 filling station

Big-Bag filling unit Type VB1

The economic solution for big-bag filling applications

The VB1 filling unit features a robustly constructed support frame, a minimum of moving parts and is suitable for different bag sizes. The stainless steel, double-walled filling head with aspiration connection and bag clamping ring enables an efficient filling and de-aeration. The bag support frame with specially designed bag loop retainers offers an easy drive-off for filled big-bags



Model CVB3 installation for filling, vibrating and stacking Big-Bags



Filling head with inflatable bag spout clamping mechanism

Big-Bag filling unit Type VB2

A complete solution for big-bag filling applications

The VB2 filling unit has the same features as the VB1 but is additionally executed with a special coned vibrator support table as standard.

Optional features

The above mentioned models can be further enhanced with smart options like:

- Filling head with inflatable bag clamping mechanism
- Inflation system for big-bag liner
- Integrated weighing system with 3 electronic weigh cells (Weight and Measures certified)



Model VB2 filling station with coned vibrating support table, weighing and drive-off shuttle



Integrated (stamped) weighing system

Big-Bag filling- and weighing unit Type VB3

The ultimate in Big-Bag filling and weighing

A complete unit that offers a fully automated solution for every industrial big-bag filling and weighing application in either batch or continuous operation. It gives the operator a safe and easy to use installation with features like automatic loop release cylinders, coned vibrator support table, automated pallet drive-in and bag drive-out system.

Coned vibrator support table

Very fluidisable materials make Big-Bags unstable and dangerous to handle. With the VB3 unit the product is de-aerates and compacted by means of vibration ensuring maximum weight in the smallest and most economical bag.

The conical shape of the table forces the material towards the corners of the bag. The table is automatically raised and lowered during filling whereby the vibrating action is directly transferred into the bag for a compact and stable result. The combination of the vibration action and the conical table ensures a maximum of volume reduction of the material in the Big-Bag, as well as a stable shape.



Ordinary filling machine TBMA Filling machines Types VB2/VB3

Filling is continuous and the big-bag is under vibration for 90% of the filling time. During the last 10% of the process cycle, the support table automatically lowers to allow accurate final weighing. The vibrating period and interval can be set to the particular product and type of bag. After final lowering of the support table the centre column of product flattens and settles to form a straight and stable bag shape suitable for stacking up to three high.

When the desired weight of the Big-Bag is reached a pallet is dispensed into the machine. The palletised Big-Bag can now automatically be driven out of the filling machine.



Coned vibrating support table



Automated pallet drive-in and bag drive-out system



Rotating suspension frame



Big-Bag Carousel

High output solutions for big-bag filling and weighing applications

A special carousel execution has been developed in order to obtain high output capacities of up to 70 bags per hour with only two operators.

The Carousel execution features the following components:

- Pre-weigh hopper to enable fast but accurate filling
- First station for hanging up big-bag.
- Second station for bag stretching, vibrating and filling.
- Third station for automatic bag removal.
- Bag removal with weight check point.
- Bag removal can be done with or without pallets.
- Manual control or fully automatic operation.
- Customised operator platforms, supports and catwalks
- Control panel with touch screen interface



Quality is no Coincidence

TBMA has a wide range of expertise in the application of this type of equipment with proven reliability in practice that is essential for a correct assessment of the right type of system for your particular situation.

TBMA offers you a complete test facility for assessing your requirements before making appropriate recommendations on the equipment required for any future installation.

It is our business to provide the solution to your process problems, whether you require a single unit for a specific problem or a complete Big-Bag filling and weighing system. TBMA can make the difference. Contact us and find out!!



TBMA also has a complete range of Big-Bag discharge systems



Complete Big-Bag filling and weighing installation for handling resin flakes with automatic pallet feed and bag drive-off

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