



Big Bag Discharge Station

*Mobile and Fixed Lifting Column
for Big Bag Discharging*

EMPTYING SOLUTIONS FOR BIG-BAGS



Big Bag Discharge Station

The Big Bag Emptying Station is a modular system used to discharge products from Big Bags (also known as Bulk Bags or FIBC). It is available in different configurations suitable for different application types.

The frame can be made of painted steel or satin-finished AISI 304 stainless steel. It consists of two main parts: the base structure fixed to the ground and a lifting frame that supports the Big Bag.

The upper part of the frame has two configuration types for the Big Bag connection: one using the forklift and an alternative structure to support the beam, where there is an electric hoist motor with a crane to support the Big Bag.

Big Bag Discharge Station has pneumatic massaging paddles on which the Big Bag is placed. During the product suction phase, pneumatic actuators in pairs drive the massagers into rotary motion, allowing

quick and complete Big Bag emptying.

Upon request, the Big Bag Unloading System can be placed on load cells that measure and visualize the actual weight remaining in the bags and that of the product transferred and/or dosed into the receiving system.

A Big Bag Docking Station creates a closed system for product unloading that prevents any powder or dust exposure into the atmosphere and ensures maximum operator protection during the discharge phase.

The whole system is controlled by a PLC and designed under the Machinery Directive 2006/42/EC in correspondence with all safety regulations. Upon request, it can be manufactured for applications in ATEX classified zones.

Frame with Big Bag hoist



Used to lift and position Big Bags without using the forklift

Lifting frame



Used to attach and support the Big Bag

Lump Breaker



Used for crushing clumps, chunks, or blocks into smaller, more manageable sizes

Weighting unit



Used to measure unloading and dosing operations





Frame with sockets for
forklift connection
Used to lift and position Big
Bags without using the forklift



Side massagers



static

Massage paddles



in motion



open

Big Bag Docking System



Manual

closed



Automatic



Suction hopper

It is installed on the Big Bag Discharge Station
outlet point and creates a closed system,
allowing direct powder transfer by vacuum from
the Big Bag into the other machinery



Integrated Big Bag
Unloading System
with Vacuum
Conveyor for Bin



Big Bag Discharge
Station installed on
load cells



Big Bag Discharge
Station for feeding
reactor using
Vacuum Conveyors



Big Bag Discharge
Station for feeding
dissolvers using
Vacuum Conveyors

Fixed / Mobile Big Bag Lifting Column with Mobile Docking System

Control Panel



Motorized wheel



This type of AGR-LIFT series Lifting Column is designed and manufactured to lift, support, and handle the Big Bags.

The Lifting Column for Big Bags finds its primary applications in the chemical, pharmaceutical, and food industries, especially in those powder handling processes where there is a need to optimize the production flow and prevent "cross pollution" cases. Upon request, it can be manufactured for installation in dusty environments and ATEX classified zones.

The Column features a simple design consisting of an external stainless steel AISI 304 structure and an internal galvanized carbon steel load-bearing structure with the attached supporting arm.

The Lifting Column for Big Bags is equipped with a Mobile Docking System consisting of two locking handles. Thanks to a clamping mechanism, it ensures complete powder containment while unloading Big Bags. This Big Bag Docking System is available in manual and automatic versions and can also be integrated with the CIP system.

All functions of the Lifting Column (vertical and horizontal movements, in addition to all customizable specifications) are managed automatically by the control panel installed on board. The rotation and lifting systems are regulated by superior, intermediate, and inferior limit switches adjustable according to the specific installation and application process requirements.

All AGR-LIFT series Lifting Columns are fully compliant with cGMP and UNI EN ISO standards. Upon request, the columns can be manufactured for installations in powdery surroundings and/or ATEX classification zones, adhering to all relevant safety requirements.

Mobile Docking System

Docking system



Standard



With CIP System



Mobile Lifting Column for Big Bag Unloading



Mobile Closing System integrated with CIP

